



The Path to
Success:
How Women-Owned Businesses
Transform in the Era of Digitalization

Case Studies from Vietnam, South Korea,
and Singapore



Knowledge Partner:





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Konrad-Adenauer-Stiftung (KAS) is a German political foundation that holds freedom, justice, and solidarity as the basic principles underlying their work. KAS Regional Economic Programme Asia (SOPAS) is a regional forum that contributes to the debate and reform of economic and governance models in Asia. SOPAS focuses on the following three strategic areas: (1) advancing women in leadership; (2) free trade and multilateralism; and (3) the future of work. Furthermore, it brings together a network of policymakers, economists, political analysts, and thought leaders across Asia to discuss emerging issues, propose policy alternatives and share best practices. These discussions in Asia are also brought to the fore in Europe through expert conferences, seminars, and workshops. Publications on these key topics are regularly released to provide insights and recommendations to national and regional policymakers.

About Woomentum

Woomentum is an independent organization that supports women leaders and women in business. Our mission is to help better the lives of women and their communities by enabling women leaders to grow sustainable and profitable businesses. Woomentum's head office in Singapore runs multiple projects in research, advocacy, and capacity building throughout South-East Asia. Our project activities are in support of women-led SMEs and women-led technology startups. As ecosystem builders, we actively engage with entrepreneurs, investors, donors, and policymakers.

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Foreword by KAS Japan



Rabea Brauer



Cristita Marie Perez

It is an established fact that women in Asia are less present in managerial positions and are hardly found in technological sectors. Accordingly, for the sake of stable societies and sustainable economic growth, we must understand what role women play in the current technological upheavals. Does the COVID-driven digitalization lead to business disadvantages? Are women left even further behind in the STEM sectors? Or does technological progress make way for new independence, more flexible work structures, new financing methods, and new startups?

In 2020, Konrad-Adenauer-Stiftung's Regional Economic Programme Asia (SOPAS) partnered with Woomentum and, after months of research amidst the COVID-19 pandemic, launched the publication, *The path to success: How women-owned businesses transform in the era of digitalization*. The first set of country studies focused on Cambodia, Indonesia, Malaysia, and Myanmar. These comparative case studies revealed how women-owned small and medium-sized enterprises (or WSMEs) use and take advantage of new technologies to grow their businesses. The research results also outlined WSME's challenges with regard to access to financing, mentoring, improving business processes, and COVID-19 mitigation and management.

The present volume is an expansion of the research we started almost two years ago. This time, we focus on three additional countries: Vietnam, South Korea, and Singapore. We continued to find similar themes with more countries included. The general findings can be summarized as follows:

- WSMEs continue to rely on internal funding for various reasons; the most dominant of these reasons are the reluctance to relinquish control and/or meet unsustainable growth targets.
- WSMEs crave and seek mentoring and networking. However, most want long-term mentor-mentee relationships based on shared values and beliefs. While continuous skills learning is prized, at the same time, time and the demands of both businesses and families pose certain limitations.
- Although the pandemic accelerated WSME's digitalization, these processes are adapted *ad hoc*, without a clear digitalization roadmap as a foundational guide. WSMEs have tremendously benefited from digitalization, but most want a systematic set of processes to sustain these gains.

The individual country contexts provide a deeper and more nuanced analysis of these common trends. In this publication, we outline concrete recommendations for action for policymakers in the respective countries on the analyzed difficulties of women, e.g., using financial instruments or using technologies profitably. We separately present recommendations for governments, financial institutions, SME networks, and other relevant institutions.

The message is clear: WSMEs can and want to thrive in the digital age. However, in order to turn this dormant potential into lived reality, support from all sides is necessary.

Rabea Brauer

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Foreword by Woomentum



Mouna Aouri



Alice Thet

Despite the countless challenges that we have faced during the COVID-19 crisis, one silver lining of the current pandemic is that it has considerably accelerated the digital transformation of small- and medium-sized enterprises (SMEs) in Asia. While today's digital revolution is a pivotal movement among all businesses, it is particularly important for women-owned SMEs (WSMEs). Here at Woomentum, we believe that digitalization is a key factor that can help women entrepreneurs successfully overcome gender-specific challenges in business.

Aided by digital technologies, women entrepreneurs can further empower their families, communities, and society as a whole.

Since the beginning of our research in 2020, we have conducted in-depth interviews with a stunning total of 146 WSMEs and 60+ experts across seven Asian countries (Cambodia, Indonesia, Malaysia, Myanmar, Singapore, South Korea, and Vietnam). The results of this large-scale endeavor revealed that, while certain challenges to digitalization are universal, some opportunities are country-specific. Yet the biggest reward of our project has been the opportunity to discover and publish—in this report and via other Woomentum channels—the fascinating success stories of dozens of inspiring, resourceful, and courageous female entrepreneurs.

In this second volume, we mapped the digital maturity of participating WSMEs based on a model adapted from the Cisco Digital Maturity Index and sought to better understand the unique challenges at each level of digital maturity. While this report identifies numerous challenges, each of these challenges presents a meaningful opportunity for governments, financial institutions, WSMEs networks, and other relevant institutions to collaboratively ensure that women entrepreneurs are not left behind in today's digital revolution. Along with the valuable support of the Lee Kuan Yew School of Public Policy, we formulated key recommendations specific to government institutions and classified them by the policy cycle stage. It is our hope that this publication will spark dialogue within the community to support the digitalization of WSMEs in Asia, thereby unlocking the true economic potential of women entrepreneurs.

Last but not least, we are extremely grateful to Konrad-Adenauer-Stiftung, all interviewed WSMEs and participating experts, and, most importantly, to all our team members, researchers, writers, editors, and designers. Without your contribution, this much needed research would not have been published. Despite being spread across seven different time zones, our team has been able to seamlessly collaborate, brainstorm, and run events virtually – all thanks to the power of digitalization, so vehemently advocated for in the present volume.

Mouna Aouri

Founder & CEO, Woomentum

Alice Thet

Head of Research, Woomentum

Acknowledgments

The present volume was prepared as a joint effort between the Konrad-Adenauer-Stiftung's Regional Economic Programme Asia (SOPAS) and Woomentum to shed more light on the challenges faced and opportunities provided by digitalization to women-owned small- and medium-sized enterprises (WSMEs) in Vietnam, South Korea, and Singapore during the second year of the COVID-19 pandemic. The project was initiated and led by Mouna Aouri, with the assistance of Alice Thet.

Many people contributed to the publication of this research project. The publication was designed by Rudy P Agnel. The lead author of this present volume was Talitha Amalia, assisted by Farah Aulia, Muhammad Lutfi, and Yasmin Aruni. The case study from Vietnam was co-authored by Lena Bucatariu and Nguyen Phuoc Nam Phuong, with active involvement provided by Huynh Cong Thang and Hoang Thi My Linh. The data collection for the South Korea case study was led by Songyi Lee, assisted by Hyunjung Shin, Minzi Kang, Seon Yeong Lee, and Marta Allina. The data collection for the Singapore case study was led by Jacqui Hocking, assisted by Adeline Seah and Sara Kanematsu. Additional analysis and writing assistance for the Singapore case study was provided by Su Mon. The data underpinning the present volume come from desk research, interviews, and moderated advisory panel discussions conducted by a team of researchers led by Woomentum, drawing on local expertise in each country's case study. The research involved a total of 60 women-owned small- and medium-sized enterprises (WSMEs) and 28 experts for data collection from April to July 2021.

The research team would also like to gratefully acknowledge the valuable assistance of Dr. Reuben Ng from the Lee Kuan Yew School of Public Policy, Singapore for his generous advice during the data collection process and review of the policy recommendations. Finally, this research would not be possible without the participation of women entrepreneurs and experts in the field of women entrepreneurship, digital transformation, finance, investment, and policy all of whom shared their experiences and valuable insights on the real conditions of WSMEs during this unprecedented time.

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Acronyms and Abbreviations

ACT	Agri-Food Cluster Transformation
ADB	Asia Development Bank
AED	Agency for Enterprise Development
AI	Artificial Intelligence
AP	Advisory Panel
ASEAN	Association of Southeast Asian Nations
ASME	Association of Small & Medium Enterprises
ASMES	Association of Small and Medium Enterprises in Southern Vietnam
AVPN	Asian Venture Philanthropy Network
B2B	Business-to-Business
B2C	Business-to-Consumer
BANSEA	Business Angel Network of Southeast Asia
BBA	Bigbang Angels
BFI@SMU	Business Families Institute at Singapore Management University
BIF	Business Improvement Fund
BNI	Business Network International
BoA	Board of Advisors
BPW International	Business and Professional Women International
CAD	Computer-Aided Design
CAM	Computer-Aided Manufacturing
CCEI	Center(s) for Creative Economy and Innovation
CDG	Capability Development Grant
CEO	Chief Executive Officer
COC	Chamber of Commerce
COVID-19	Coronavirus Disease 2019
CRM	Customer Relationship Management
CSIE	Center for Social Innovation and Entrepreneurship
CTOaaS	Chief Technology Officer-as-a-Service
CRIB Society	Creating Responsible and Innovative Businesses Society
DBS	Development Bank of Singapore
DMI	Digital Maturity Index
eCommerce	Electronic Commerce
EDG	Enterprise Development Grant

EFS	Enterprise Financing Scheme
EnterpriseSG	Enterprise Singapore
ERP	Enterprise Resource Planning
EUR	Euro
EuroCham	European Chamber of Commerce
F&B	Food and Beverage
FEC	Future Economy Council
FinTech	Financial Technology
FSC	Financial Services Commission
G20	Group of Twenty
G2G	Government-to-Government
GDP	Gross Domestic Product
GEI	Gender Equity Index
GIZ	German Federal Enterprise for International Cooperation
GLI	Gender Lens Investment
HAWASME	Hanoi Women’s Association of Small and Medium Enterprises
HAWEE	Ho Chi Minh City Association for Women Executives and Entrepreneurs
HCMC	Ho Chi Minh City
HDB	Housing & Development Board
HNEW	Hanoi Association for Women Entrepreneurs
HR	Human Resources
ICT	Information, Communication, and Technology
IDP	Industry Digital Plans
IFC	International Finance Corporation
IIX	Impact Investment Exchange
ILO	International Labour Organization
IMDA	Infocomm Media Development Authority
IPO	Initial Public Offering
ISO	International Organization for Standardization
IT	Information Technology
JSS	Jobs Support Scheme
KAS	Konrad-Adenauer-Stiftung
KCCI	Korean Chamber of Commerce and Industry
Kibo	Korea Technology Finance Corporation
KIP	Korea Investment Partners
KISED	Korea Institute of Startup & Entrepreneurship Development
KITA	Korea International Trade Association
KOREG	Korea Federation of Credit Guarantee Foundations

KPI	Key Performance Indicator
KOSBI	Korea Small Business Institute
KOSME	Small and Medium Business Corporation
KOTRA	Korea Trade-Investment Promotion Agency
KOWWA	Korea Venture Business Women's Association
KRW	Korean Won
KSF	Korea Startup Forum
KV	Kakao Ventures
KVC	Korea Venture Investment Corporation
KWDI	Korean Women's Development Institute
KWEA	Korean Women Entrepreneurs Association
MAS	Monetary Authority of Singapore
MBA	Master's in Business Administration
MBI	Mekong Business Initiative
ME	Medium-Sized Enterprise
MIC	Ministry of Information and Communications
MiWE	Mastercard Index of Women Entrepreneurs
MOET	Ministry of Education and Training
MPI	Ministry of Planning and Investment
MRA	Market Readiness Assistance
MSME	Micro-, Small-, and Medium-Sized Enterprise
MSS	Ministry of SMEs and Startups
MTI	Ministry of Trade and Industry
MYSOC	Merry Year Social Company
OCBC	Oversea-Chinese Banking Corporation
OECD	Organisation for Economic Co-operation and Development
OWD	Office of Women's Development
P&L	Profit & Loss
P2P Lending	Peer-to-Peer Lending
POS	Point of Sales
PSG	Productivity Solutions Grant
QR	Quick Response
R&D	Research and Development
SWISSEP	Swiss Entrepreneurship Program
SBA	Seoul Business Agency
SBDC	Small Business Development Centers
SBPWA	Singapore Business and Professional Women's Association
SBV	State Bank of Vietnam

SCCI	Singapore Chamber of Commerce & Industry
SCWO	Singapore Council of Women’s Organizations
SE	Small-Sized Enterprise
SEMAS	Small Enterprise and Market Service
SEO	Search Engine Optimization
SFA	Securities and Futures Act
SFEC	SkillsFuture Enterprise Credit
SFG	Shinhan Financial Group
SG	Singapore
SGD	Singapore Dollar
SGUP	SGUnited Mid-Career Pathways
SICC	Singapore International Chamber of Commerce
SIHUB	Saigon Innovation Hub
SIWA	Seoul International Women’s Association
SK	South Korea
SME	Small- and Medium-Sized Enterprise
SMEDF	Small and Medium Enterprise Development Fund
SNDGO	Smart Nation and Digital Government Office
SSG	SkillsFuture Singapore
STEM	Science, Technology, Engineering, and Mathematics
SVF	Startup Vietnam Foundation
SWIK	Startup Women in Korea
SWOF	SEAF Women’s Opportunity Fund
SWU	Seoul Women Up
TA	Technical Assistance
TAC	The Assistance Center for SMEs
TAP	Technology/Adoption Programme
TIPA	Korea Technology and Information Promotion Agency for SMEs
UBS	Union Bank of Switzerland
UWAS	University Women’s Association (Singapore)
UCITSETF	Undertakings for the Collective Investment of Transferable Securities Exchange Traded Funds
UFGE	Umbrella Facility for Gender Equality
UN Women	United Nations Women
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UOB	United Overseas Bank

UNCDF	United Nations Capital Development Fund
USAID	United States Agency for International Development
USD	United States Dollar
UX	User Experience
VAWE	Vietnam Association for Women Entrepreneurs
VC	Venture Capital
VCCI	Vietnam Chamber of Commerce and Industry
VISA	Vietnam Innovative Startup Accelerator
VN	Vietnam
VND	Vietnamese Đồng
WVEC	Vietnam Women's Entrepreneurs Council
WAVES	Women Accelerating Vibrant Enterprises in Southeast Asia and the Pacific
WCIP	Women's Corporate Information Portal
WEClub	Women Entrepreneurs Club
WeFi	Women Entrepreneurs Finance Initiative
WESC	Women Enterprise Supporting Center
WFUNA	World Federation of United Nations Associations
WISE	Women's Initiative for Startups and Entrepreneurship
WLB	Women's Livelihood Bond
WME	Women-Owned Medium-Sized Enterprise
WMSME	Women-Owned Micro-, Small-, and Medium-Sized Enterprise
WSE	Women-Owned Small-Sized Enterprise
WSME	Women-Owned Small- and Medium-Sized Enterprise

What's New?

New in the Second Volume

This study is the second volume of *The path to success: How women-owned businesses transform in the era of digitalization*. The second volume presents case studies on women-owned small- and medium-sized enterprises (WSMEs) from Vietnam, South Korea, and Singapore. Notable improvements in the second volume include the following:

WSMEs' Stakeholders Map

There are numerous stakeholders, each playing an important role in supporting the presence of WSMEs, ranging from government and private institutions to NGOs and business associations. Their activities are interconnected, as each has its own scope of work and power. In the present report, stakeholders are mapped to provide a visual representation of all actors who can influence the growth of WSMEs and how they are connected.

WSMEs' Digital Maturity Index

Adapted from the Cisco Digital Maturity Index, this study proposes a Digital Maturity Index for WSMEs. This index categorizes WSMEs into the following four levels of maturity: Indifferent, Basic Adopter, Intermediate Adopter, and Advanced Adopter. This categorization is based on WSMEs' digitalization levels in three pillars: (1) financing; (2) mentoring, networking, and skill-building; and (3) business processes and management. Using this index, readers can see how WSEs and WMEs progress in their digitalization journey, when provided with a straightforward metric to guide them from one level to the next. Challenges in each of the maturity levels can further be identified to ease the problem-solving and decision making of each WSME.

Policy Cycle Stages

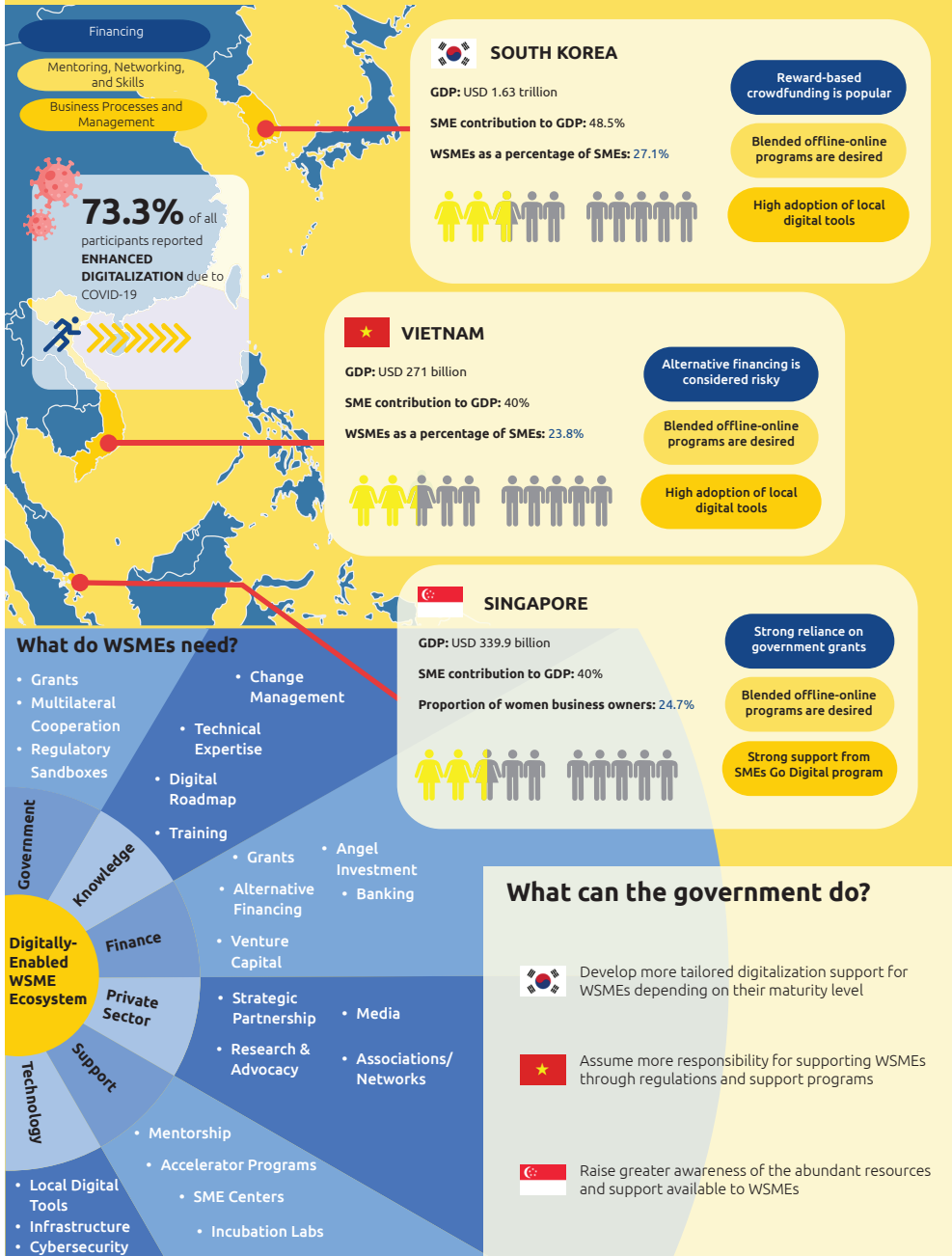
Key recommendations specific to government institutions in Vietnam, South Korea, and Singapore were created with a specific focus on helping WSMEs to start their digitalization journey and thus support business growth. The recommendations are presented based on the policy cycle stages. They were formulated by incorporating the comments of experts and advisory panelists, along with the problems identified for each respective pillar. In this volume, each recommendation is mapped against the notable policy cycle stage (see recommendation section in Chapter 1), so readers can easily locate the stage at which each recommendation should be executed.

Executive Summary

WSMEs and Digitalization

How can WSMEs Transform in the Era of Digitalization?

In the current volume, 60 participating women-owned small- and medium-sized enterprises (WSMEs) in South Korea, Vietnam, and Singapore shared their experiences in navigating the uncertainties surrounding the COVID-19 pandemic. The 28 experts helped to formulate recommendations to turn the potential of digitalization for WSMEs into lived reality.



Key Issues

As the COVID-19 pandemic prevails, women-owned small- and medium-sized enterprises (WSMEs) have to confront a distinctive set of challenges and opportunities compared to their male counterparts. This is particularly the case in Asia, a region where women's opportunities and choices are often hindered by culture and local norms. The COVID-19 pandemic caused lockdowns and the implementation of strict health protocols, forcing WSMEs to adapt and change their ways of working in multiple ways, especially by adopting digital tools. This research project is a continuation of the study conducted in 2020 that investigated the role of digitalization in helping WSMEs navigate the COVID-19 crisis.

Three case studies from Vietnam, South Korea, and Singapore are presented in this study, complementing last year's research with the data from WSMEs that have managed to operate throughout the pandemic. Last and this year's research revealed similar themes, such as the emergence of alternative financing, participation in online learning programs and networking, and the adoption of digital tools to increase the efficiency and effectiveness of existing business processes. It is important for us to understand how digitalization can further narrow the gender gap in business—an issue that will be addressed in this study.

Key Findings

The main findings of the present study are structured around the following four pillars: 1) access to financing; 2) access to mentoring, networking, and skills; 3) business processes and management; 4) crisis management (COVID-19).

Pillar 1: Access to Financing

All three countries included in the present research were among the countries that have made an effort to regulate alternative forms of financing, such as peer-to-peer (P2P) lending and digital banks, with Vietnam being the most recent country to have proposed a law in September 2021. Alternative financing becomes increasingly important for the growth of WSMEs, with notable examples including the use of reward-based crowdfunding platforms in South Korea. In Vietnam, the laws governing digital financing can increase the adoption of alternative financing by WSMEs, addressing their skepticism and risk aversion. Meanwhile, in Singapore, there is a clear need to increase WSMEs' awareness and adoption of the widely available alternative financing options to shift them from the now-dominant reliance on government grants.

Pillar 2: Access to Mentoring, Networking, and Skills

In Vietnam, South Korea, and Singapore, WSMEs can apply to participate in training on financial literacy, as well as business acceleration programs, mentorship, networking, and other learning opportunities. These events are often organized by the government, typically in collaboration with business associations. Digitalization provides flexibility for women, enabling them to network and learn from the comfort of their homes, while balancing their personal and professional lives. In addition, virtual events can alleviate women entrepreneurs' discomfort in networking events that are often male-dominated, such as golfing, drinking, and going to sauna spas. As networking is crucial to business growth, virtual events enable women entrepreneurs to gain and nurture important connections.

Pillar 3: Business Processes and Management

Digitalization plays an important role in increasing the effectiveness and efficiency of WSMEs' business processes, a trend that is currently observed in Vietnam, South Korea, and Singapore. In South Korea and Vietnam, local digital tools are widely adopted by WSME participants, indicating that digitalization is also accessible to non-English speaking users. In Singapore, digitalization of SMEs is largely guided and facilitated by the government through the SMEs Go Digital program. A digitalization roadmap is outlined in Singapore's Industry Digital Plan (IDP), as well as grants that can be used to purchase digital tools. The WSMEs participating in this study reported organization-wide digital adoption, which included the use of collaborative platforms, payment gateways, financial management, human resources, e-commerce, artificial intelligence (AI), and cybersecurity.

Pillar 4: Crisis Management (COVID-19)

In order to provide steady support to their growth while mitigating the impact of the COVID-19 crisis, WSMEs in Vietnam, South Korea, and Singapore need financial support, training, and guidance to work safely. In all three countries, the government plays a critical role in providing financial support and assistance that can help WSMEs to overcome the crisis, sometimes with the help of business associations and private institutions. To date, WSMEs have received financial support via grants, loans, and/or tax waivers, which considerably reduced their operational burden and allowed them to allocate resources to more urgent activities, such as digitalization (to increase the efficiency of the business), as well as to refine their business model to become pandemic-proof.

Key Recommendations Specific to the Governments of Vietnam, South Korea, and Singapore

Policy Cycle Stages	Country	Recommendations
Agenda Setting		<p>Pillar 1: Access to Financing</p> <ul style="list-style-type: none"> Use gender-disaggregated data to inform policies affecting WSMEs, including access to financing. <p>Pillar 2: Access to Mentoring, Networking, and Skills</p> <ul style="list-style-type: none"> Provide grants to subsidize the cost of mentoring so that mentoring programs can be monetized. This will enable providing increased incentives to both mentors and mentees, as well as help to address dropouts. Such grants should be extended to existing volunteer-based mentoring programs and peer mentoring arrangements developed beyond formal mentoring programs. Implement continuous technology and data education programs for the WSME skill-building roadmap regardless of their level of technological knowledge. <p>Pillar 3: Business Processes and Management</p> <ul style="list-style-type: none"> Provide guidance on business resilience and cybersecurity digitalization. Guidance is needed not only on digitalization, but also on how to digitalize securely.
		
		
Policy Formulation		<p>Pillar 1: Access to Financing</p> <ul style="list-style-type: none"> Set up of regulatory sandboxes by the government to encourage Innovation in alternative financing, such as P2P lending and digital banks.
Decision Making		<p>Pillar 1: Access to Financing</p> <ul style="list-style-type: none"> Implement the regulatory sandboxes by the governments to encourage innovation in alternative financing, such as P2P lending and digital banks.
Policy Implementation		
Monitoring and Evaluation		<p>Pillar 1: Access to Financing</p> <ul style="list-style-type: none"> Grant-making policies should consider WSME size, maturity, industry, business model, and cash-flow cycle to reach a wider range of qualifying companies with varying backgrounds.

Chapter 1: Digitalization of Women-Owned SMEs: Challenges and Opportunities in Vietnam, South Korea, and Singapore

1.1 Introduction

This introductory chapter establishes the foundation for the present volume and provides an overview of the research background, methodology, and main findings of the country case studies on digitalization and women-owned small- and medium-sized enterprises conducted under Konrad-Adenauer-Stiftung's Foundation Office for the Japan/Regional Economic Programme Asia (SOPAS) in collaboration with Woomentum.

As a continuation of last year's study, this report intends to complement the findings on WSMEs and digitalization in Asian countries—specifically Vietnam, South Korea, and Singapore. WSMEs are an essential part of a country's economy and confront unique challenges compared to their male counterparts. One challenge, in particular, is the expectation of women entrepreneurs to successfully carry the dual responsibilities of their professional and caretaking roles. In the current global pandemic, WSMEs have to strategize and make appropriate decisions to sustain and grow their business—a situation in which digitalization plays an important role. It is hoped that the present study could help readers to better understand the current landscape of WSMEs and digitalization in Asia. Hopefully, our recommendations will also encourage the government to more closely work with relevant ecosystem stakeholders to support and create more digitally-enabled WSMEs. Finally, in the subsequent chapters, readers will find a more in-depth analysis of the opportunities and challenges that women entrepreneurs in Vietnam, South Korea, and Singapore face throughout their digitalization journeys.

1.2 Research Background

Since the beginning of the COVID-19 outbreak in 2020, businesses all across the globe have been severely and adversely impacted in the form of revenue loss, closures, mass layoffs, and liquidity issues.^{1,2,3} Micro- and small-sized enterprises have generally suffered more in terms of business closures and revenue drops. A recent study by The World Bank found that the impacts of COVID-19 on businesses were mostly observed across the following three aspects: operations, sales, and employment.⁴ In Asia, small- and medium-sized enterprises (SMEs) have also experienced considerably reduced employment and revenues after the COVID-19 outbreak.⁵ Two sectors were identified as the most hard-hit by the current pandemic: service (travel, tourism, hotel, entertainment, and restaurant business) and manufacturing (apparel and food processing). Among the major reasons underlying this adverse impact are changes in social interactions, behaviors, and practices that forced many businesses, including women-owned small- and medium-sized enterprises (WSMEs), to adapt during the pandemic, as well as digital technology.

The present study aims to shed more light on the present and future opportunities of digitalization for WSMEs using women owners' voices. We also intend to provide insights into the set of challenges experienced by WSMEs for all relevant ecosystem stakeholders, such as governments and business associations. As mentioned above, this research project is a continuation of study conducted in 2020, which involved four country case studies: Indonesia, Myanmar, Malaysia, and Cambodia (see Figure 1.1).⁶ As the previous project was conducted in the early phases of the COVID-19 pandemic, data collection was carried out at a time where businesses had only recently been hit by the drastic economic change and were still in the critical phases of adapting to survive. The 2020 research highlighted how female owners' unique role affected digital adoption in WSMEs and the areas in which they needed support to be able to grow their businesses. In the present study, we hope to enrich the results of the previous study by widening the scope of our investigation to Vietnam, South Korea, and Singapore.

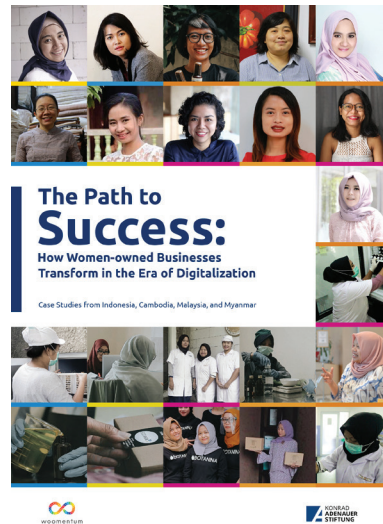


Figure 1.1 Cover page of the 2020 research publication commissioned by Konrad-Adenauer-Stiftung's Foundation Office for the Japan/Regional Economic Programme Asia (SOPAS) research and advocacy program in collaboration with Woomentum

Women's Entrepreneurship and Digitalization Landscapes in Vietnam, South Korea, and Singapore

Women's entrepreneurship is a key pathway for advancing women's economic empowerment, helping them to establish economic independence and overcome poverty. Overall, women-owned businesses hire 17% more female employees as compared to their male counterparts⁷—indicating that supporting female entrepreneurs might lead to an increase in jobs available to women. In addition, evidence shows that an increase in women's economic empowerment has positive intergenerational effects—for instance, children receive better food and education when women have greater control of the household income.⁸ In Asia, a region where women's opportunities and choices are often hindered by culture and local norms, supporting female entrepreneurs and women-owned businesses becomes increasingly important.

It should be noted, however, that the extent to which digitalization has the potential to narrow the gender gap in business depends on the quality of the existing infrastructure and acceptance of the technology throughout the country. In Vietnam, South Korea, and Singapore, the penetration of smartphones in 2021 is considered to be relatively high and similar between the three countries, with over 96% of the population owning at least one device (see Figure 1.2). However, this trend is not observed with regard to Internet access, since Vietnam seems to lag behind, with only 70.3% of its population having access to broadband connectivity.⁹

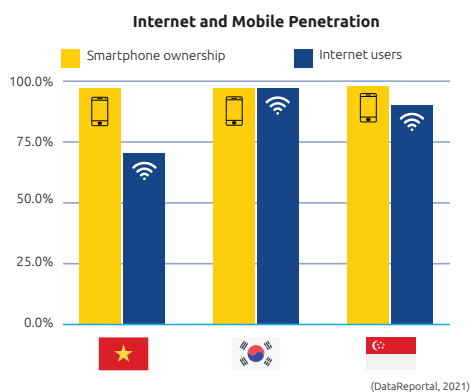


Figure 1.2 Internet and mobile penetration in Vietnam, South Korea, and Singapore

Digitalization and Access to Financing for WSMEs

With digitalization continuing to disrupt various aspects of society, it was only a matter of time before digital technology also disrupted access to financing for businesses. With the emergence of new forms of financing, countries began to establish and/or amend financing regulations to ensure protection of all stakeholders involved in the process. All three countries included in the present research have made efforts to regulate alternative forms of financing, such as P2P lending and digital banks, with Vietnam being the most recent to have issued a law in September 2021 (see Figure 1.3).

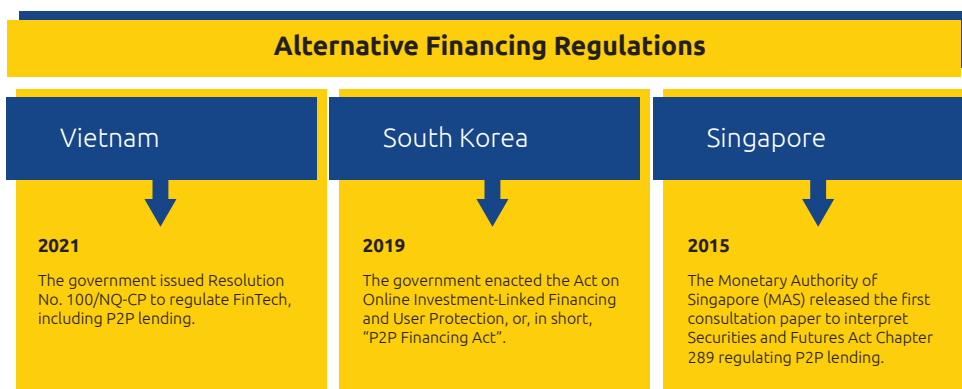


Figure 1.3 Example of alternative financing regulations in Vietnam, South Korea, and Singapore

Alternative financing regulations were established to provide a regulatory framework supporting the development of financing models. In 2015, the Monetary Authority of Singapore (MAS), the regulatory body in Singapore, proposed the framework to amend the Securities and Futures Act (SFA) to include a regulation framework for crowdfunding. This proposal included a regulation for minimum capital requirements and security deposit requirements for crowdfunding to get licensed.¹⁰ In addition, the MAS announced the digital bank framework in June 2019, which aims to enable non-bank players with strong value propositions and innovative digital business models to offer digital banking services.¹¹ Since 2020, several digital banking platforms have been given a license to operate in 2022.

In 2019, the Korean National Assembly promulgated the Act on Online Investment-Linked Financing and User Protection (the "P2P Financing Act"). The law regulates P2P lending capital requirements, caps on the maximum interest rate and fees, as well as investor protection by introducing measures such as

investment and lending limits.¹² In September 2021, the Vietnamese government approved Resolution No. 100/NQ-CP, which aims to provide a regulatory sandbox for alternative financing, including P2P lending, payment, credit, and consumer identification support. The Vietnamese government delegated the responsibility to the State Bank of Vietnam (SBV), in collaboration with other relevant ministries, to provide a preliminary report by the end of 2021.¹³

Digitalization and Access to Mentoring, Networking, and Skills for WSMEs

Mentoring, networking, and skill-building activities ensure that knowledge, experience, and insights are freely shared among entrepreneurs. Traditionally, these activities are done through face-to-face interaction and maintained over time. In Vietnam, South Korea, and Singapore, for example, WSMEs can apply to participate in training on financial literacy, as well as for business acceleration programs, mentorship, networking, and other learning opportunities organized by the government, often in collaboration with business associations. However, despite the availability of these programs, time limitations remain a critical constraint that forces women entrepreneurs to juggle between their core business activities and activities they need to improve their capacity (see Figure 1.4).



Figure 1.4 An illustration of a WSME owner juggling business activities and mentoring, networking, and skill-building

Digitalization in Business Processes and Management

Digitalization plays an important role in increasing the effectiveness and efficiency of WSMEs' business processes—a trend that can be found in Vietnam, South Korea, and Singapore. As illustrated in Figure 1.5, WSME owners are typically engaged in various activities on a daily basis to increase the value of their enterprises and to earn a profit. The activities can be optimized to generate sufficient revenue to cover expenses and earn a profit for the WSMEs. Employees help to accomplish the goals of the business by performing certain functions, such as production, marketing, accounting, and legal, often with the help of digital technologies.

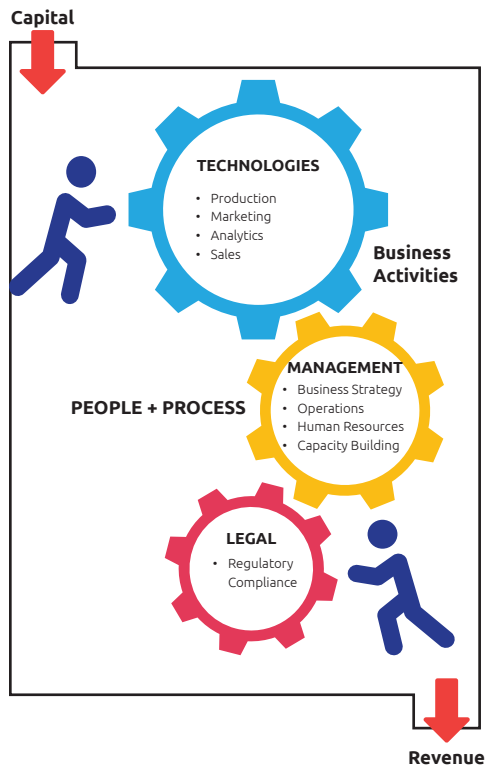


Figure 1.5 An example of a WSME's business activities

Along with sales and marketing via social media channels and e-commerce platforms, digitalization is prevalent in the area of team communications, cloud storage and collaborative documents, customer relationship management (CRM), data analytics, finance and accounting, human resources, inventory management, payments and digital transactions (POS),

vendor management for procurement and supply chain, and manufacturing. In Singapore, the government’s support of SME growth via digitalization is particularly strong, with a coordinated network of policies and grants in place and significant resources dedicated specifically to funding the digital transformation journey of local businesses. For instance, Singapore has SMEs Go Digital, a program from Infocomm Media Development Authority (IMDA) that provides detailed and inclusive initiative digitalization plans for SMEs.¹⁴

Prominent Ecosystem Support during COVID-19

To ensure their growth while mitigating the impact of the COVID-19 crisis, WSMEs in Vietnam, South Korea, and Singapore need financial support, training, and guidance to work safely. To date, WSMEs have received financial support via grants, loans, and/or tax waivers. Ecosystem support has played a central role in determining whether businesses survive or thrive during the pandemic. Figure 1.6 summarizes the identified WSME business support ecosystem in these countries to help them manage the impact of the COVID-19 pandemic.

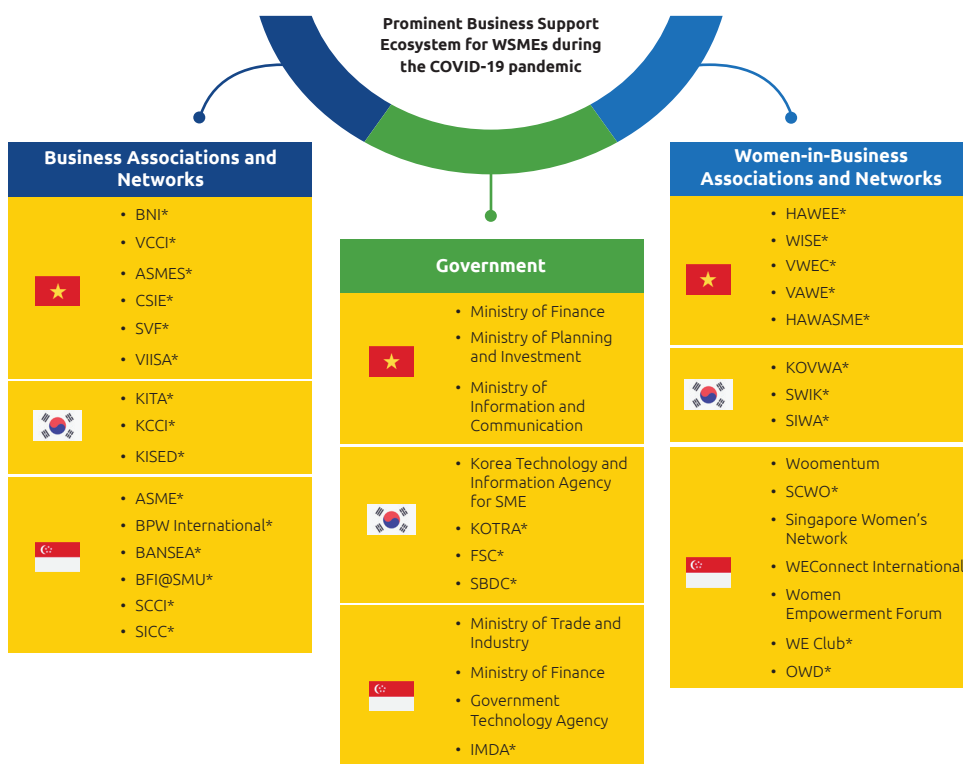


Figure 1.6 Identified WSME support ecosystems during the COVID-19 pandemic
*Please refer to the Acronyms and Abbreviations section

To support the struggling businesses, the Vietnamese government has allocated, via relevant ministries, several support schemes to help SMEs navigate the pandemic, mainly in the form of a tax break, fiscal support, and reduced land lease fees.¹⁵ In addition, associations such as Business Network International (BNI) focus on building networks and encouraging the members to market their products to each other during the COVID-19 pandemic. Women-specific associations and programs, such as Ho Chi Minh City Association for Women Executives and Entrepreneurs (HAWEE) and Women’s Initiative for Startups and Entrepreneurship (WISE), also offer learning programs to help SMEs cope with the impact of the COVID-19 pandemic.

In South Korea, the Ministry of SMEs and Startups of Korea provided support worth EUR 1.2 billion to help with fiscal support, loans, digitalization, training, and redeployment in March 2020. The South Korean government further added to the fund a total of USD 119 billion worth of stimulus for various purposes, such as training for digitalization.¹⁶ In addition, business associations such as the Korean Chamber of Commerce and Industry (KCCI) offer online workshops and consultations for SMEs. Korea Institute of Startup & Entrepreneurship Development connects startups with investors through acceleration programs. Women-specific associations such as Korea Venture Business Women's Association (KOVWA) offer grants and conduct workshops on digitalization to help SMEs reduce the adverse impact of the COVID-19 crisis on their businesses. Finally, Startup Women in Korea (SWIK) conducts an online workshop on digitalization and how to access government support.

Similarly, in Singapore, the government allocated several stimulus packages to help SMEs navigate the pandemic. The scope of stimulus packages ranges from tax waivers and other types of fiscal support to employment support, loan support, deferral of loan repayments, legal support, as well as sector-specific funds.¹⁷ Further dedicating resources towards a digital economy, in 2020, the Singaporean government announced a budget of SGD 3.5 billion to be spent on information and communications technology to support digitalization of local businesses.¹⁸ Among the different types of support, training and upskilling, with initiatives such as SkillsFuture, is one of the major focuses to improve SMEs' resilience. In addition, business associations such as Woomentum, Singapore Council of Women's Organizations (SCWO), Singapore Women's Network, and WEConnect International also provide support for women entrepreneurs during the COVID-19 pandemic.

1.3 Methodology

In this chapter, we provide a summary of the research process followed by each participating country. This study was conducted using a qualitative approach that involved interviewing 1) women SME owners to understand their digitalization journey and business growth; 2) experts to provide deeper insights on each country's WSMEs and digitalization landscape; and 3) advisory panels to synthesize practical and policy recommendations.

As a continuation of last year's study, in this present study, we used the four-pillar framework to analyze the role of digitalization in WSMEs (see Figure 1.7).



Figure 1.7 Research pillars used as a method of analysis in this study

Participant Selection Criteria

The WSME participants recruited in the present study operated in diverse sectors, with a total of 60 WSMEs or 38 small-sized enterprises (SEs) and 22 medium-sized enterprises (MEs) from Vietnam, South Korea, and Singapore. We also incorporated a total of 32 experts' comments collected through interviews and advisory panel discussions from the three countries. The backgrounds of the experts ranged from business associations and entrepreneurship to digital transformation.

The recruited WSME participants represented a diverse array of sub-sectors, which enabled us to evaluate patterns in digital technology adoption among the study participants (see Figure 1.8). To maintain anonymity, each participating WSME was assigned a code indicating the country of that WSME (VN = Vietnam; SK = South Korea; SG = Singapore), its business maturity (SE = small-sized enterprise; ME = medium-sized enterprise), and numbers (01, 02, 03, etc.). For example, SG_SE01 referred to the first small-sized enterprise interviewed in Singapore, SG_ME03 referred to the third medium-sized enterprise that the researchers interviewed in Singapore, and so forth.

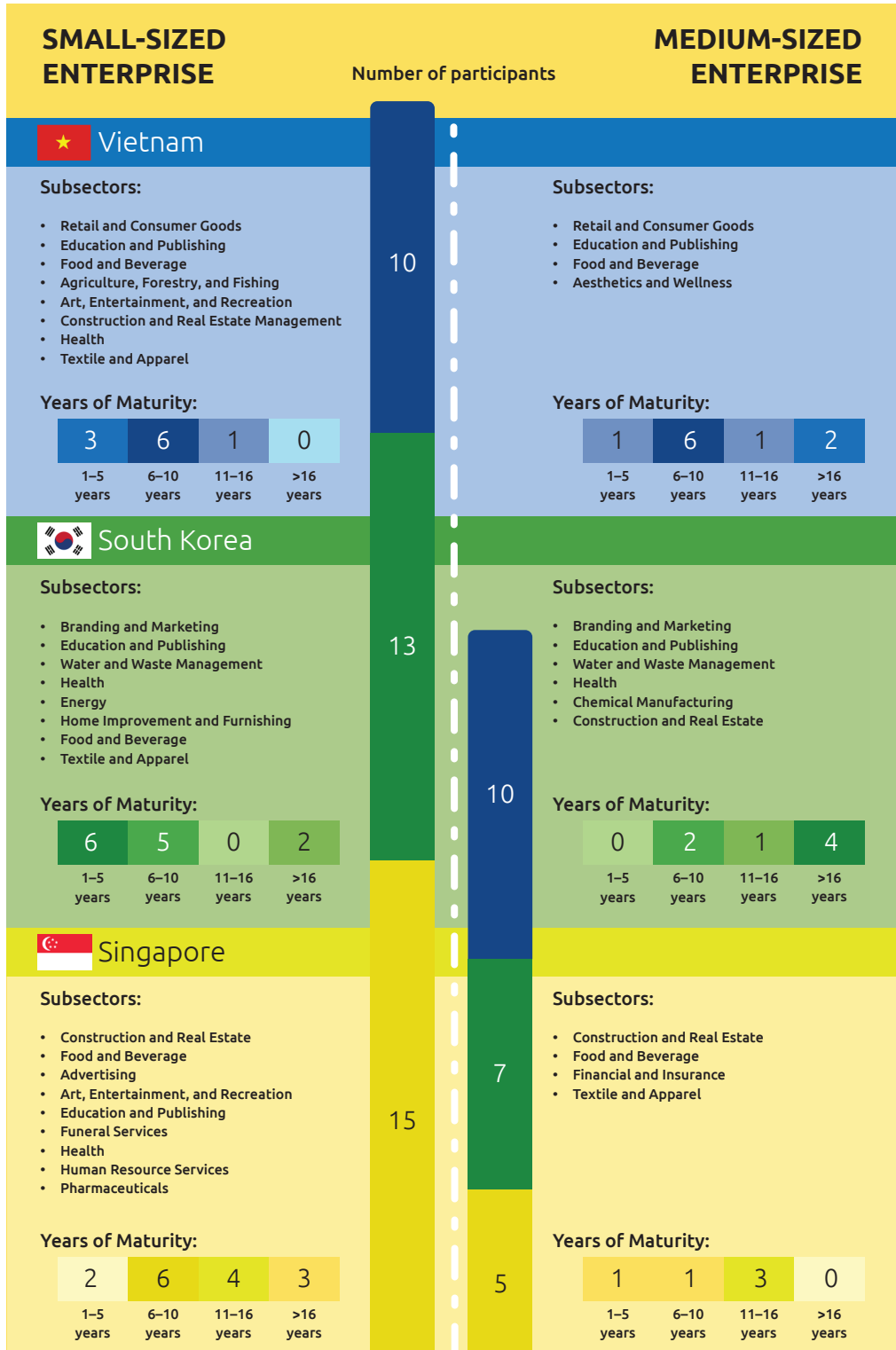


Figure 1.8 WSME participants' overview

Data Collection and Analysis

In order to obtain a better understanding of digitalization in WSMEs in each country, we collected current and historical data on WSMEs, the existing digital environment, as well as other factors that potentially contributed to the adoption of digital technology by the identified WSMEs in each of the three participating countries (see Figure 1.9). The results of this step included desk research and stakeholder map. Interviews were then conducted with WSME owners to understand their adoption of digital technology for their businesses and to gather data on the four key pillars.

Area		 Vietnam	 South Korea	 Singapore
Language used in interviews		Vietnamese	Korean	Mandarin, English
Methodology	Desk Research	Institutional report and secondary data		
	WSME Interviews	Virtual interviews accompanied by supporting historical company data		
	Expert Interviews	Semi-structured in-depth interviews conducted virtually		
	Advisory Panel	Guided discussion conducted virtually		

Figure 1.9 Data collection

Other interviews were conducted with 11 experts from the following three fields: 1) women's business association; 2) SMEs/entrepreneurship; and 3) digital transformation. The aim of this step was to achieve a better understanding of the environment and trends in digital adoption for SMEs, in general, and for WSMEs, in particular. Each country involved a different number of experts. Research findings based on the WSME and expert interviews from each participating country were discussed separately with advisory panelists per country—to this end, three separate groups of seven panelists joined each country's advisory panel, respectively.

Limitations

In undertaking this research, all country teams faced a number of challenges that were ultimately due to the research being conducted in the midst of the COVID-19 pandemic, with its associated safety measures and restrictions. In order to remotely communicate and collect data wherever possible, we had to employ online

research methods, such as online interviews and mobile and video calling/conferencing. Many interviews and all advisory panel discussions across the three countries were conducted online, which made it difficult to observe behavioral cues that could have provided additional nonverbal context to the information being conveyed.

Another limitation of the present study is a possible survivorship bias that could have emerged due to the research being done approximately one year since the outbreak of the pandemic. During this time, many businesses in all three countries were so severely impacted by the drastic economic changes that they had no choice but to close down. As a result, the recruited WSME participants were naturally those who had been able to weather the storm and got back on their feet. To reduce this survivorship bias, future research would benefit from the inclusion of businesses that went bankrupt.

1.4 Summary of Main Findings

Pillar 1: Access to Financing

Main Source of Financing for WSMEs

As shown in Figure 1.10, most WSME participants reported using internal financing (savings, personal funds, and operating profits) and combining this with external financing, such as bank loans, reward-based crowdfunding, or government grants. Vietnamese participants used more bank loans as compared to the participants from Singapore and South Korea. Furthermore, in Singapore and South Korea, government grants remained the main source of external financing for WSMEs. This is a stark difference as compared to the situation in Vietnam, where none of the WSMEs mentioned using government grants. South Korea was the only country where over half of WSME participants used reward-based crowdfunding.



Figure 1.10 Number of WSME participants using internal financing

Use of Alternative Financing

In our results, the adoption of regulated alternative financing, such as P2P lending, was found to be extremely low (see Figure 1.11). In South Korea, only two WSME participants mentioned that they had adopted P2P lending. The main reasons why the study participants did not explore new financing models were risk aversion and lack of awareness. In Vietnam, there was no adoption of such models, as the corresponding regulation was only recently issued on September 6, 2021 with the passing of Resolution No.100/NQ-CP (see Section 1.2).



Figure 1.11 Peer-to-peer lending services adopted by WSME participants

Non-regulated forms of alternative financing, such as donation- and reward-based crowdfunding services, were found to be thriving in South Korea, as illustrated by a high adoption of reward-based crowdfunding platforms such as Wadiz, Tumbbug, and Kakao Makers. The interviewed owners of WSMEs in South Korea explained that they used the platforms not only to raise funds, but also to validate their products and build their customer base. Reward-based crowdfunding was considered to be effective in cutting down marketing costs, particularly for large-scale outreach. On the other hand, customers use the platforms to fulfil their needs for innovative products that are not yet available in the market. Although using reward-based crowdfunding also means that customers have to wait before getting their products, this trend is driven by product affordability, outstanding quality, and innovative product offerings—thus creating a competitive market.¹⁹

Government Grants

As shown in Figure 1.12, many participants in Singapore and South Korea accessed government grants. Vietnam has a contrasting situation, where none of the participants mentioned having accessed government grants at all. In addition, the interviewed owners of WSMEs who accessed the government grants pointed out the resource-intensive and complex procedures they had to undergo, which ultimately resulted in their reluctance to apply for grants. Another observed issue was the lack of awareness surrounding grant availability and qualification requirements, which was pervasive among almost all participants reporting the issue.

The experts consulted in this study suggested that the lack of awareness might be the reason why these WSMEs did not apply for government grants.

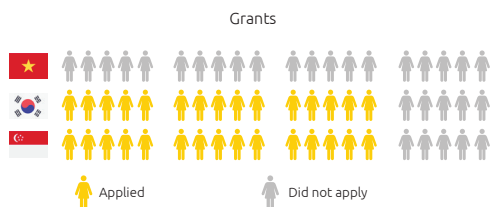


Figure 1.12 Use of government grants for SMEs in Vietnam, South Korea, and Singapore

Awareness as the Common Challenge for WSME Participants to Access External Financing

Awareness related to accessing external financing sources was considered a challenge by many WSME participants (see Figure 1.13). Similarly, the lack of awareness surrounding alternative financing and gender-lens financing instruments was also consistently reported in all participating countries. For instance, a WSME from Singapore reported that she did not have knowledge of the alternative financing options, because she did not think the digital financing platform could fulfill her financing needs. Another WSME reported that she opted for using traditional forms of financing, because she understood its risks, while the newer alternative financing models remained unclear to her.



Figure 1.13 Awareness as the common challenge faced by WSME participants in accessing external financing

Pillar 2: Access to Mentoring, Networking, and Skills

The Role of Digitalization in WSMEs' Mentoring, Networking, and Skill-Building

The interviewed WSME participants reported having accessed mentoring, networking, and/or skill-building opportunities through both online and offline means. Specifically, both business associations and

networks through WSMEs' inner social circles were used as a means to seek mentoring opportunities, connect with fellow entrepreneurs in their field, and acquire new skills. Connections were established both virtually and face-to-face format. Compared to traditional means, specific digital tools were reported to have been used more frequently and by more WSMEs for the aforementioned three purposes (see larger circles in Figure 1.14).

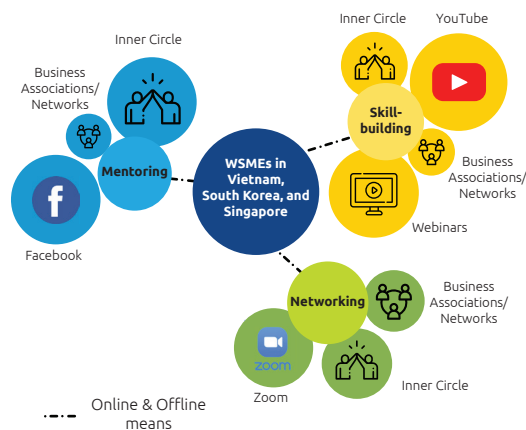


Figure 1.14 How WSME participants in Vietnam, South Korea, and Singapore accessed mentoring, networking, and skill-building

Common Challenges Experienced by WSMEs in Mentoring, Networking, and Skill-Building

The interviewed owners of WSMEs highlighted the top four challenges in terms of accessing mentoring, networking, and skill-building (see Figure 1.15). One of the main concerns was related to content and mentors. An important issue highlighted by the participants in South Korea was content relevance, such as outdated curriculum or theory, rather than practical cases. In Vietnam, WSME owners' limited English proficiency hindered their access to available online English training content. In Singapore and South Korea, the lack of sufficient engagement of and commitment from mentors caused the learning experience to be inadequate to resolve the real challenges that WSME had to confront. In Vietnam, looking for a credible and high-quality mentor was mentioned as a challenge. Monetization of mentoring was also frequently mentioned by the study participants and experts as a potential solution to improve the level of

commitment, as this was considered to entail more responsibility, and WSMEs would feel like they were wasting money when they failed to attend mentoring sessions. In addition, payment made the mentoring arrangement feel more professional to both mentors and mentees.

Balancing the running of day-to-day operations and allocating time for mentoring, networking, and skill-building is a consistent theme that emerged in the interview data across Vietnam, South Korea, and Singapore. For many, networking and investing time in building a network was seen as a challenge. However, after the outbreak of the COVID-19 pandemic, virtual events came into wide use. This helped with making the process more efficient, as owners no longer needed to travel or spend time on physical networking events. For skill-building, looking for the appropriate content to learn and spending time learning, on top of managing day-to-day operations, were considered big hurdles for the participants. Most of them resorted to being trained on the job to resolve this conflict.

A preference for face-to-face interaction was also identified as a challenge that limited the adoption of digital mentoring, networking, and skill-building. In Vietnam, South Korea, and Singapore, the interviewees believed that face-to-face interaction remained essential for networking and learning. However, they also recognized that combining offline and online interactions worked well for them. For example, in South Korea, a participant reported nurturing her networks both through LinkedIn and local associations, such as Korea Trade-Investment Promotion Agency (KOTRA).

Pillar 3: Business Processes and Management

The Rise of Local Digital Tools for WSMEs

The interviewed WSME participants were not strangers to the use of technology to assist in their business processes and management. This phenomenon was noticeable in the wide range of purposes for which the digital tools were adopted. In Vietnam and South Korea, there was a clear pattern of preference for the use of locally-developed digital tools among the WSME participants (see Figure 1.16). In Vietnam, WSMEs preferred using local digital tools for business management purposes, including financing and inventory management. This tendency was mainly driven by affordable prices and responsive customer services as compared to non-local digital tools. Conversely, in South Korea, the participants leaned more towards the use of local social media platforms and digital tools for teamwork, fundraising, and payment needs. The main reason underlying this preference in Korean WSMEs was more induced by the localized user experience and the use of Korean as the language of instruction.

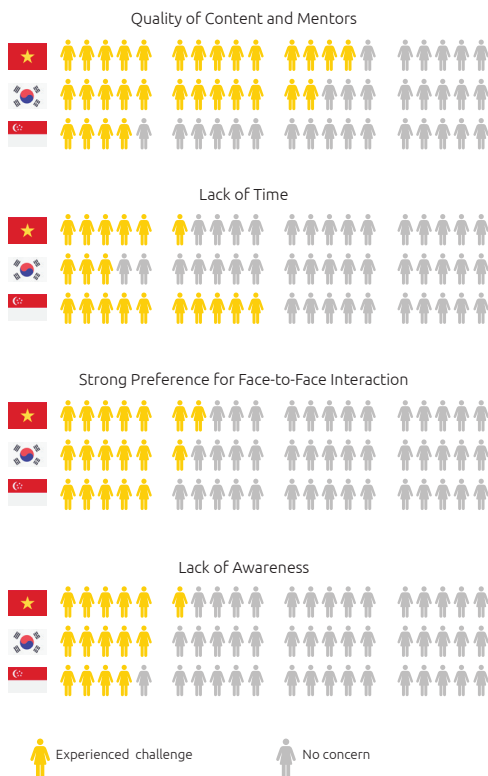


Figure 1.15 Top challenges in mentoring, networking, and skill-building experienced by WSME participants

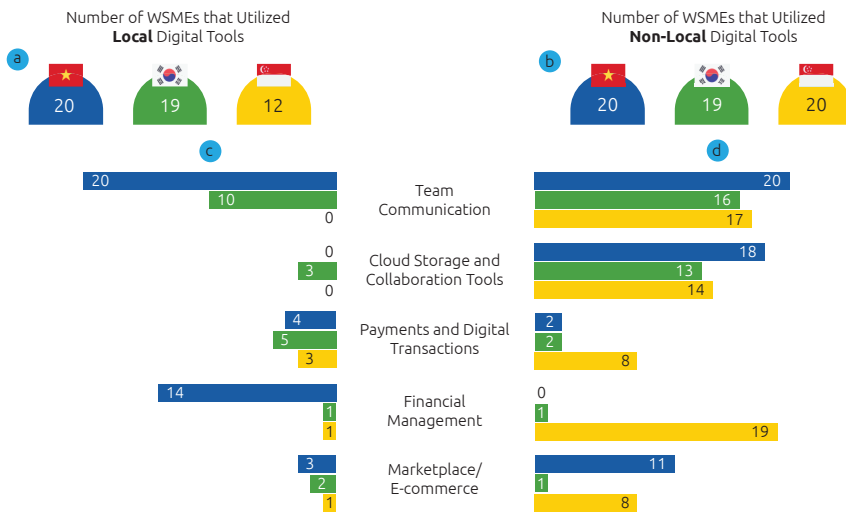


Figure 1.16 Use of local and non-local digital tools among WSME participants. As shown above, (a) the number of WSME participants reported using local digital tools per country; (b) the number of WSME participants reported using non-local digital tools per country; (c) some areas of the company in which local digital tools were adopted; (d) some areas of the company in which non-local digital tools were adopted

Common Digitalization Challenges for Business Processes and Management

The results of the present study highlighted four top digitalization challenges that WSMEs in Vietnam, South Korea, and Singapore had to face. These challenges included team adoption, insufficient digital skills, lack of skilled talent, and lack of financial resources (see Figure 1.17). Digitalization is not a straightforward process; rather, it requires changes in organization, business processes, and job design. Significant changes might cause resistance from employees whose day-to-day jobs are affected, resulting in operational disruptions, delay in digitalization, or cost overrun. Therefore, what is crucial for organizations is effective change management that would explain to employees how digitalization is going to change the way they work and ensure that they can continue doing their jobs.

Of note, the adoption of digital tools into daily operational activities requires sufficient digital literacy and skills, which was identified as another challenge. Digital literacy focuses on why, when, who, and for whom. On the other hand, digital skills are more related to what and how. For example, a digitally literate employee would know why he or she would need to use a digital collaboration tool (e.g., Miro for group brainstorming), when to use it, and for whom the tool is used. A digitally skilled employee can select the appropriate digital tool and understand

how to use it (e.g., Slack to communicate with fellow employees or OneDrive to store collaborative documents). The interviewed WSME participants, especially in Vietnam, reported to have confronted a scarcity of digitally savvy talent as one of the challenges in building their internal capabilities. The last challenge was the lack of financial resources, as the WSMEs reported having limited financial resources to afford digital tools.

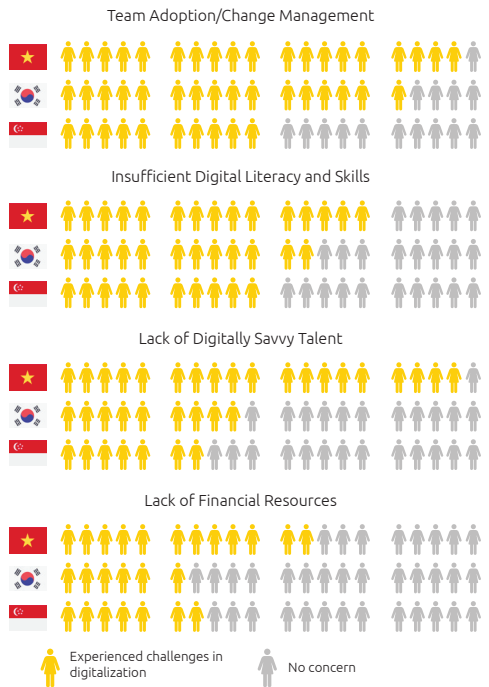


Figure 1.17 Top challenges in employing digitalization in the participating WSMEs

Digital Maturity Index

The digital maturity index (DMI) for WSMEs was adopted from the digital maturity index proposed by Cisco (2020), with some modifications to better match the research framework in the present study.²⁰ As shown in Figure 1.18, the rubric consisted of three dimensions: namely, digital strategy and implementation in 1) financing; 2) mentoring, networking, and skill-building; and 3) business processes and management. Each dimension evaluated an essential aspect of the WSMEs' growth. The index categorizes each participating WSME from Vietnam, South Korea, and Singapore into one of four levels of maturity: Indifferent, Basic Adopter, Intermediate Adopter, and Advanced Adopter (see Appendix A for a more detailed explanation of the calculation).

Digital Maturity Index	Indifferent	Basic Adopter	Intermediate Adopter	Advanced Adopter
Pillar 1: Financing	Company did not use any digital financing sources	Company started to use digital financing sources	Company used multiple digital financing sources	Company used digital financing to leverage competitiveness
	Rate: 0%	0 < Rate ≤ 33%	33% < Rate ≤ 66%	66% < Rate ≤ 100%
Pillar 2: Mentoring, Networking, and Skills	Company did not use any digital mentoring, networking, or upskilling platforms	Company started to use digital mentoring, networking, or upskilling platforms	Company used multiple methods of digital mentoring, networking, or upskilling platforms	Company adeptly used a digital mentoring, networking, or upskilling platform to increase competitiveness
	Rate: 0%	0 < Rate ≤ 33%	33% < Rate ≤ 66%	66% < Rate ≤ 100%
Pillar 3: Business Processes and Management	Company only used digital communication tools and/or social media	Company started to use basic digital solutions in its business processes and management	Company used multiple basic or intermediate digital solutions in its business processes and management	Company used multiple basic, intermediate, or advanced digital solutions in its business processes and management
	Rate: 0%	0 < Rate ≤ 33%	33% < Rate ≤ 66%	66% < Rate ≤ 100%
Final Score	20 x Pillar 1 Rate + 20 x Pillar 2 Rate + 60 x Pillar 3 Rate			
	0–15 points	16–30 points	31–45 points	> 46 points

Figure 1.18 Digital maturity index rubric

Figure 1.19 shows the model of digitalization stages for all WSME participants in Vietnam, South Korea, and Singapore. In Vietnam, in particular, most of the WSME participants were categorized as Intermediate Adopters or Advanced Adopters (17/20 WSMEs). This means that, despite all challenges they reported (see Figure 1.17), the Vietnamese WSME participants proved that they would keep enhancing their digitalization, no matter how many hurdles they would have to overcome. The results also indicated strong perseverance and a high level of motivation among the Vietnamese WSME participants. In Vietnam, those classified as Intermediate and Advanced Adopters mentioned a higher adoption of advanced digital tools in the area of fundraising, mentoring, networking, skill-building, business development, business processes, and management, as compared to WSMEs in South Korea and Singapore.

For South Korea, the 10 WSMEs categorized as Intermediate Adopters or Advanced Adopters tended to use more local digital fundraising

platforms, team collaborations, and accounting tools. Furthermore, in Singapore, the 10 WSMEs categorized as Intermediate Adopters or Advanced Adopters tended to use paid resources for learning and business processes. All enterprises in the three countries with high DMI scores also used advanced digital solutions, such as data analytics, enterprise resource planning (ERP), and machine learning to create an advantage in their business operations. For the group with lower DMI scores, the corresponding industries tended to be conventional, such as small local restaurants, funeral services, or traditional education services.

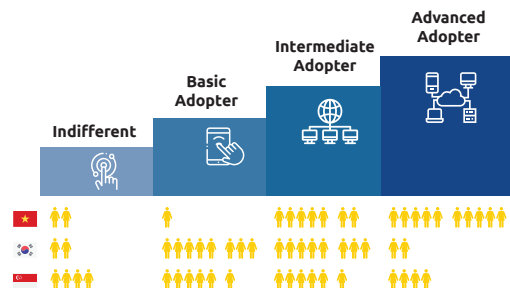


Figure 1.19 Digital maturity index results for the participating WSMEs

Pillar 4: Crisis Management (COVID-19)

Business Strategies Employed by the WSMEs to Drive Growth

In this study, 21 owners of WSMEs reported to have growing businesses despite all the difficulties they had to confront during the COVID-19 pandemic (see Figure 1.20). Companies in this category came from various industries, including:

- Essential businesses that remained open to customers throughout the pandemic, such as health, consumer goods manufacturing, grocery retail, as well as water and waste management. Unlike other companies, these businesses have not experienced financial hardships, regardless of the strict safety measures. In fact, they experienced higher orders for their offerings.
- Non-essential businesses that experienced higher demand for their products and services during the pandemic, particularly in industries such as home improvement and furnishing, fashion, fitness equipment, residential real estate, digital marketing and branding, coaching and training, event organizing, and insurance.

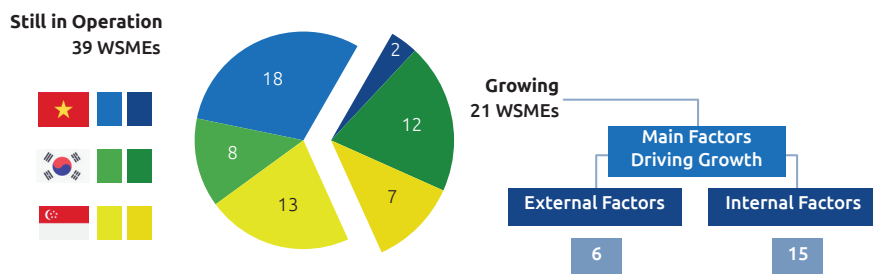


Figure 1.20 The effect of the COVID-19 pandemic on the participating WSMEs

Furthermore, there were two different groups under the “Growing” category, further classified based on the following two main factors that drove their business growth: (1) external and (2) internal. The six companies under the “External Factors” category admitted that they had not implemented a digital strategy. Notwithstanding, they experienced significant growth because they received a dramatic increase in product purchasing after the COVID-19 outbreak. Meanwhile, the other 15 companies under “Internal Factors” reported an increase in demand from customers/clients after the outbreak of the COVID-19 pandemic, which was further sustained, if not boosted, by effective digital strategies. These companies reported employing aggressive digital marketing strategies, using data analytics, and embracing optimal digital business processes.

Although companies in the “Still in Operation” category reported having struggled to keep up with the COVID-19 restrictions by the time of the interview, many of them were aware of the importance of embracing digital technologies in their businesses. For instance, the WSMEs providing childcare and face-to-face education services reported losing their clients since the beginning of the pandemic in 2020. By the time of the interview, they reported having to slowly start embracing digital marketing and pivoting to offer online services while waiting for all of their team members to get vaccinated so they could resume offline operations.

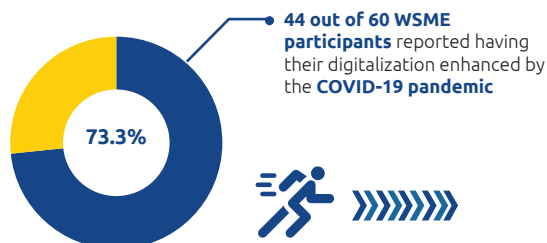


Figure 1.21 Enhancement of digitalization during the COVID-19 pandemic

Digitalization: Opportunities

Digitalization provides many opportunities that can be used by WSMEs to survive and grow during the pandemic, despite the inevitable challenges. In this section, we outline the opportunities for each challenge that has emerged. These opportunities are related to People, Time, Cost, Gender, and Language.

People

Ultimately, digitalization aims to increase the efficiency and effectiveness of a business by enabling people to work with digital tools. In our results, several people-related opportunities were identified (see Figure 1.22). First, despite the low level of awareness about external financing options, WSME owners, when given sufficient guidance, were open to learning about the available financing options. Second, WSMEs' skepticism concerning non-face-to-face interactions for networking and learning can be addressed through the provision of blended offline-online solutions by business associations and networks. Third, by using digital tools in all pillars, most of the interviewed WSMEs started the digitalization process. Although this might not be a manifestation of a radical change management, the change management process was launched, even if this was unconsciously done or performed in an *ad hoc* manner. To sustain the total change management process, the WSMEs need support from the key ecosystem stakeholders through education and training. Finally, the insufficiency of digital literacy and skills can be overcome by the eagerness of WSMEs to seek guidance for the development of a digitalization roadmap.



Figure 1.22 Notable people-related challenges and opportunities among WSME participants

Time

A common constraint faced by WSME participants was limited time, because they chose to prioritize day-to-day business operations over networking, mentoring, or skill-building activities (see Figure 1.23). As people started to embrace digital activities as the norm, WSMEs started to save time by joining virtual networking, mentoring events, and digital learning. They no longer had to commute and travel from one place to another, which has considerably increased the amount of activities they can participate in. In addition, the WSMEs interviewed in this study also mentioned that the application processes for loans are long and very complicated, which often requires physical visits to the bank. This can be mitigated by digitalization in financial services. One notable example in South Korea is the implementation of Blockchain technology that can reduce the loan application time from 22 to 10 days.²¹

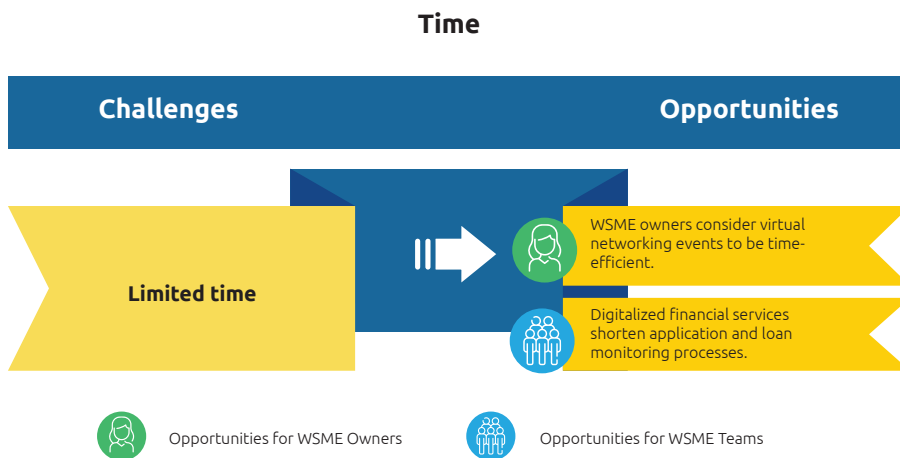


Figure 1.23 Notable time-related challenges and opportunities experienced by WSME participants

Cost

WSMEs had to prioritize their operational activities, and the pandemic situation further pushed them to choose survival over growth. However, there are several opportunities that could help WSMEs to overcome their cost-related challenges. The first one of these opportunities is the availability of free digital resources that can be readily accessed through the Internet. The second one is the availability of cheaper local digital tools (e.g., Chope, Weloy, and Quandoo in Singapore), which provides more economic options for WSMEs in their digitalization journey. Next, the third one is the availability of free digital tools, such as Google Drive and Zoom, that can also be used by small businesses (free for limited features). Finally, the last opportunity is the presence of government grants that have helped WSMEs in South Korea and Singapore to adopt costly digital tools and ease their financial burdens (see Figure 1.24).

Cost

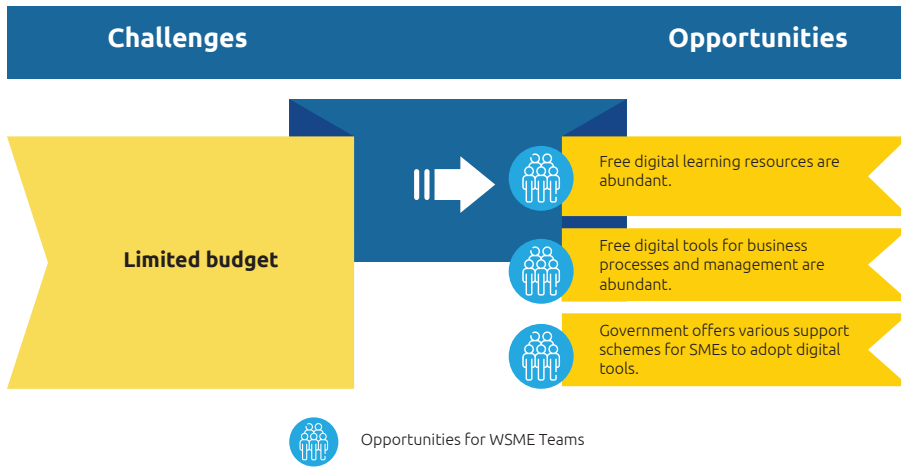


Figure 1.24 Notable cost-related challenges and opportunities experienced by WSME participants

Gender

The fourth theme is related to gender, with challenges such as the discomfort experienced by women during networking, which previously was a predominantly male-dominated activity in all three countries (e.g., late-night drinking, sauna). This situation was further complicated by the multiple roles and responsibilities borne by women owners, such as domestic roles of mothers and wives. One particular opportunity that can help to overcome the discomfort and constraints experienced by WSMEs are virtual networking events, as mentioned by WSMEs in Vietnam and South Korea. Today, women can network from their homes while balancing their professional and family care roles (see Figure 1.25).

Gender-Related

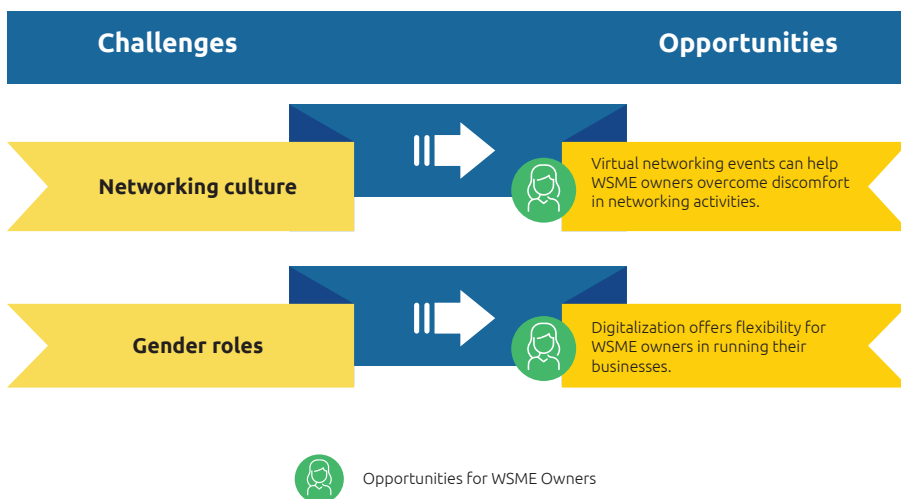


Figure 1.25 Notable gender-related challenges and opportunities experienced by WSME participants

Language

The fifth and final theme is language, which was experienced by WSMEs particularly in South Korea and Vietnam as non-English speaking countries (see Figure 1.26). Fortunately, this issue can be overcome through the use of local digital tools. Not only are these digital tools offered in their respective native languages, but the features are also tailored to the needs and behaviors of local users. Some notable South Korean applications include Naver, Kakao, JANDI, Kmong, and Miso, and cover a wide array of business processes, from e-commerce, team communication, and human resources (HR) to software services.

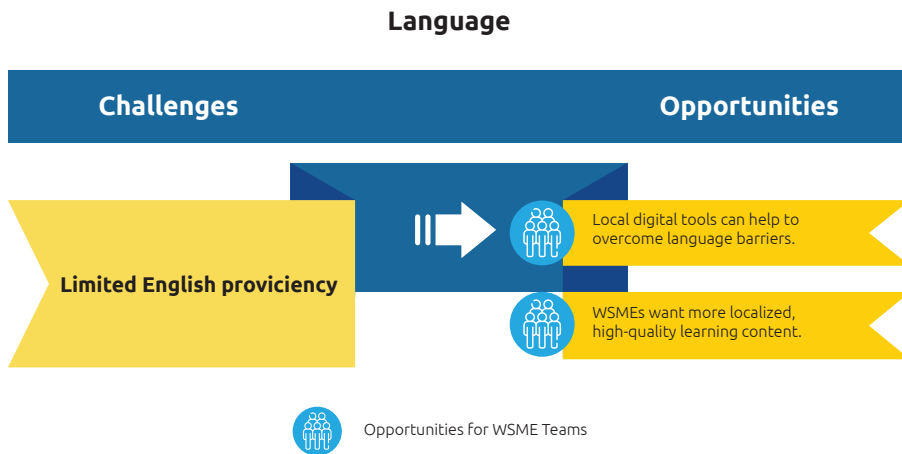


Figure 1.26 Notable language-related challenges and opportunities experienced by WSME participants in Vietnam and South Korea

1.5 Stories of Digitally-Enabled WSMEs

Role models are important for entrepreneurs not only in terms of creating a belief that entrepreneurship is a viable option, but also in terms of removing the stigma of failure. A previous study found that exposure to female entrepreneurs can boost the development of entrepreneurial self-efficacy and attitudes toward entrepreneurship.²² In the present study, the interviewed WSME participants mentioned their desire to have female entrepreneurs as role models. In addition, as a reason for this preference, they tend to look for fellow female entrepreneurs to become their mentors, citing similar experience of bearing dual responsibilities in their professional and caretaking roles. This study features several WSME owners from Vietnam, South Korea, and Singapore, with businesses operating across a wide variety of sectors, from trading, dental services, food and beverage to technology. In what follows, we highlight three noteworthy WSME participants.

Vietnam



Nguyen Thi My Lien
Founder of Chau Thong Trading and Service

Chau Thong Trading and Service manufactures and sells agarwood, essential oils, and related products. The areas of the company where digitalization was adopted are as follows:

- cloud storage and collaborative documents
- customer relationship management (CRM)
- data analytics
- digital marketing, such as design tools, email automation, and social media
- team communications
- financial and accounting tools
- human resources
- inventory management
- e-commerce
- payments and digital transactions (POS)
- software development tools, such as website builders
- vendor management for procurement and supply chain



Digital tools have been of great help for my business growth! I use Facebook, Instagram, YouTube, and TikTok to promote my products.

South Korea



Jeonga Kim
Founder of Cacao Family

Cacao Family aims to discover local resources and create a sustainable community by offering healthy and fair-trade cacao using Guatemala Cacao to create healthy food for conscious consumers. The areas of the company where digitalization was adopted are as follows:



Digitalization has helped me as a business owner and a mother of five children. It really does help me in many aspects of my venture, from fundraising to crisis management, during the pandemic.

- alternative financing services, such as reward-based crowdfunding
- cloud storage and collaborative documents
- digital marketing, such as design tools, email automation, and social media
- digital team communications
- enterprise resource planning (ERP)
- financial and accounting tools
- e-commerce
- payments and digital transactions (POS)

Singapore



Louisa Lee
Founder of DP Dental

DP Dental is a dental service based in Singapore that uses a meaningful and integrated approach to oral healthcare. The areas of the company where digitalization was adopted are as follows:



Technology is not something to be feared, but something to be a friend of.

- cloud storage and collaborative documents
- customer relationship management (CRM)
- digital marketing, such as design tools, email automation, and social media
- financial and accounting tools
- artificial intelligence (AI), such as machine learning
- data analytics
- medical equipment, such as lasers, computer-aided-design (CAD) and computer-aided-manufacturing (CAM)

1.6 Recommendations for Vietnam, South Korea, and Singapore

The Vietnamese, South Korean, and Singaporean national governments, along with other relevant stakeholders, have sought to assist WSMEs through various programs, such as COVID-19 recovery funds, digitalization support, and education. However, to date, there is little evidence about the effectiveness of these programs, which is crucial to improving government policies to create a digitally-enabled WSME ecosystem. In this section, we consolidate the findings and policy recommendations from Vietnam, South Korea, and Singapore and locate them at a particular stage of the policy cycle (see Figure 1.27).



Figure 1.27 Policy cycle

The policy cycle includes several stages, such as agenda setting, policy formulation, decision-making, policy implementation, and monitoring and evaluation.²³ While agenda setting includes many policy tasks, such as identification of policy issues and options, environmental scans, and consultation with the public, policy formulation includes a range of policy tasks, such as appraising policy options, collection of policy-related data, negotiating with stakeholders, and preparing position papers. Furthermore, decision-making includes comparing policy options, developing decision matrices, high-level briefing, negotiation with central agencies, and department planning. Policy implementation is the stage that includes implementing and delivering policy programs, negotiating with program managers, consulting with stakeholders, and conducting legal analysis. Finally, monitoring and evaluation include policy evaluations and conducting evidence-based policy analysis.

The recommendations formulated based on the results of the present study were created to focus particularly on helping WSMEs start their digitalization to support business growth and are presented based on the policy cycle stages. In formulating the recommendations, we also incorporated experts and advisory panelists' comments, along with the problems identified for each respective pillar. The process of formulating the recommendations is illustrated in Figure 1.28.

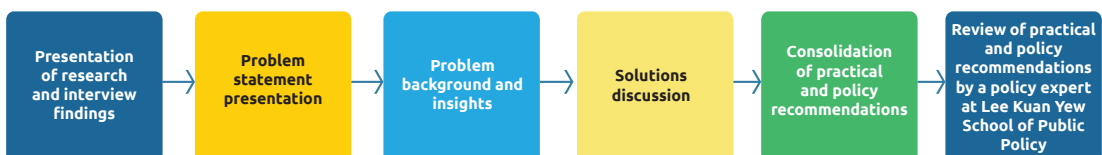


Figure 1.28 Process of formulating country-specific recommendations

Key Recommendations Applicable to Vietnam, South Korea, and Singapore

Policy Cycle Stages	Country	Recommendations
Agenda Setting		<p>Pillar 1: Access to Financing</p> <ul style="list-style-type: none"> Use gender-disaggregated data to inform policies affecting WSMEs, including access to financing. <p>Pillar 2: Access to Mentoring, Networking, and Skills</p> <ul style="list-style-type: none"> Provide grants to subsidize the cost of mentoring so that mentoring programs can be monetized. This will enable providing increased incentives to both mentors and mentees, as well as help to address dropouts. Such grants should be extended to existing volunteer-based mentoring programs and peer mentoring arrangements developed beyond formal mentoring programs. Implement continuous technology and data education programs for the WSME skill-building roadmap regardless of their level of technological knowledge. <p>Pillar 3: Business Processes and Management</p> <ul style="list-style-type: none"> Provide guidance on business resilience and cybersecurity digitalization. Guidance is needed not only on digitalization, but also on how to digitalize securely.
		
		
Policy Formulation		<p>Pillar 1: Access to Financing</p> <ul style="list-style-type: none"> Set up of regulatory sandboxes by the government to encourage Innovation in alternative financing, such as P2P lending and digital banks.
Decision Making		
Policy Implementation		<p>Pillar 1: Access to Financing</p> <ul style="list-style-type: none"> Implement the regulatory sandboxes by the governments to encourage innovation in alternative financing, such as P2P lending and digital banks.
		
Monitoring and Evaluation		<p>Pillar 1: Access to Financing</p> <ul style="list-style-type: none"> Grant-making policies should consider WSME size, maturity, industry, business model, and cash-flow cycle to reach a wider range of qualifying companies with varying backgrounds.
		

Key Recommendations Specific to Vietnam



Key Recommendations Specific to South Korea



Key Recommendations Specific to Singapore



1.7 Conclusion

In this introductory chapter, we provided an overview of the research, methodology, main findings, and consolidated recommendations from the three different country reports. Our major conclusion in this chapter is that digitalization has played an important role for WSMEs in Vietnam, South Korea, and Singapore during the COVID-19 pandemic—a finding that is consistent with the previous year's study that focused on the other four South East Asian countries. According to our present results, digitalization has been significantly enhanced, enabling women entrepreneurs to become resilient in sustaining their businesses throughout the crisis. Digital solutions provide more flexibility for women, allowing them to work, network, and learn from the comfort of their homes, while balancing their personal and professional lives. Digitalization also increases accessibility and enables cost-efficiency. The WSMEs interviewed in the present study demonstrated organization-wide digital adoption, including the use of collaborative platforms, payment gateways, financial management, human resources, e-commerce, artificial intelligence, and cybersecurity. Therefore, it can be concluded that digitalization is a promising process that can help create a more supportive ecosystem for women entrepreneurs across these three countries.

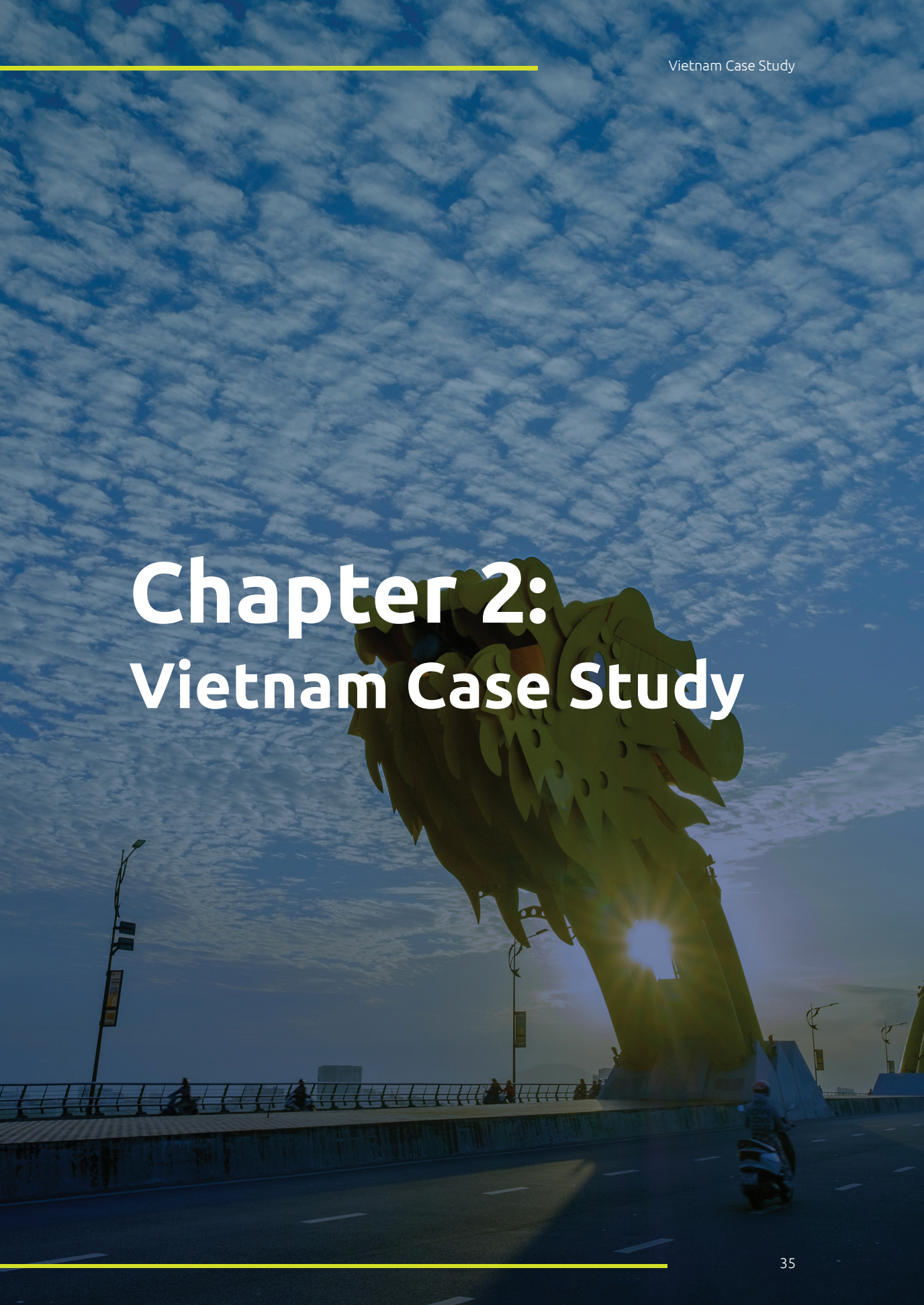
In the subsequent chapters, we provide a more in-depth analysis of the new opportunities brought by digitalization and challenges faced by women entrepreneurs in Vietnam, South Korea, and Singapore. In particular, Chapter 2 (Vietnam Case Study) reveals how eager the WSMEs in this country are to embrace digitalization. As we will show in Chapter 2, the government can assume a larger role in supporting WSMEs' digital transformation by setting several agendas for policy. Furthermore, Chapter 3 (South Korea Case Study) highlights the presence of local digital tools that reduce barriers to digitalization, especially for non-English-speaking WSME owners and employees. Finally, in Chapter 4 (Singapore Case Study) we argued that the government can become the greatest support in the successful digitalization of WSMEs, particularly through the provision of a digital roadmap and the corresponding financial grants that can be used to accelerate SME digital transformation. Taken together, the results of the present study underscore the promising potential of digitalization with regard to the growth and resilience of WSMEs, the successful implementation of which requires the support of various stakeholders in the SME ecosystem, such as the government, business associations, financial institutions, and other private institutions.

1.8 Endnotes

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Chapter 2: Vietnam Case Study



2.0 Summary

Purpose of the Study

In this case study, we explore the present and future digitalization opportunities for Vietnamese WSMEs and provide insights to address the challenges of all stakeholders.

Key Issues and Findings

In recent decades, Vietnam has made great advancements in e-commerce and digital penetration, which has enabled the economy to grow faster. Yet, despite the availability of dedicated funding and the narrowing of gender gap in the country, digital adoption remains inconsistent, and the number of Vietnamese women business owners is still low. In order to better understand the key barriers to the digital transformation of Vietnamese WSMEs and provide meaningful recommendations on how to overcome them, we conducted qualitative interviews with WSME in three cities, followed by expert interviews and an advisory panel workshop.

Pillar 1: Access to Financing

Internal financing from savings and personal loans was the most common source for smaller Vietnamese enterprises due to limited financial literacy and high requirements to access bank loans. Although a few participants reported that they were aware of venture capital or share issuance, some feared loss of control or unsustainable growth targets. None of the participants had awareness of the existing government grants and private funding for SMEs or WSMEs. Similarly, none of the interviewees had encountered gender issues when accessing financing.

Pillar 2: Access to Mentoring, Networking, and Skills

Most participating WSME owners learned business and digitalization skills by asking friends in their network, self-learning while on the job or online, or joining training provided by business/women's associations. Interviewees found it difficult to access experienced mentors with shared values, but none had awareness about the possibility to form a board of advisors who are invested in the company's interest without the fear of losing control. There was a belief in women's empowerment initiatives and their willingness to access networking, mentors, and skills.

Pillar 3: Business Processes and Management

Most participating WSMEs did not have a clear understanding and roadmap for digital transformation—instead, they used various fragmented tools, such as social media, digital marketing, e-commerce, payments, and communication tools. Key challenges to accelerated digitalization were the lack of a clear digital roadmap/direction, fixed mindset, high cost of upgrading, and limited skills. In terms of the gender lens, digitalization was seen as an advantage, as it allowed women to meet clients online without compromising their family time.

Pillar 4: Crisis Management (COVID-19)

All businesses were adversely impacted by COVID-19, with the majority of enterprises suffering from decreases in revenue, especially in sectors related to travel and tourism. Amid falling revenues and brick-and-mortar shop closures, all businesses were forced to shift their attention online for sales, communication, and data storage. Some WSMEs streamlined existing tools and invested in new solutions to achieve higher integration between departments. Yet, none of the interviewees was aware of specific COVID-19 funding for SMEs or WSMEs. Also, there was no indication that COVID-19 may have negatively affected them due to gender.

Key Policy Recommendations for Government Institutions

First, create a unified digitalization program (Pillars 2 and 3) with digitalization roadmaps by sector, as well as links to approved tools, suppliers, consultants, and specific funding. Second, build capacity for digitalization (Pillars 2 and 3) by creating a digitalization advisory network with expert advisors who can advise WSMEs about tools and suppliers for their needs. Third, make current financing methods more accessible by lowering the requirements on mortgage/collateral and increasing public relations. Fourth, regulate alternative financing methods, such as P2P lending and crowdfunding. Finally, set up a WSME financing hub (Pillars 1 and 2) that meets all WSMEs' financing needs in one place, including links to all available financing options, a self-assessment tool to choose the right funding, links to consultants, etc.

Key Practical Recommendations for Non-Government Institutions

Customized digitalization training by software suppliers, business/women's associations, and training firms to match the WSME sector/current level of digitalization and address owner/staff mindset. Current funding partners (We-Fi, IFC, partner banks, etc.), in collaboration with business associations and women's associations, should organize financial literacy training. Lenders, financial consultants/trainers, and legal facilitators should seek government approval to become preferred WSME partner, and then proactively promote existing and future funding options.

2.1 Country Background

Digitalization and Economic Growth

Following other countries in Southeast Asia, Vietnam has been making steady advancements in digitalization, which has also been supported by high digital penetration. In 2020, Vietnam launched the National Digital Transformation Program to boost digital tools and platforms. As of 2021, 70.3% of the population had access to the Internet, of which 96.9% accessed the Internet via smartphone, followed by laptop/desktop (66.1%) and tablet (31.9%).¹ A key destination for Vietnamese Internet users was social media, with 72 million active users (73.7% of the population),² slightly below South Korea (89.3% penetration) and Malaysia (86%).³ An interesting feature in Vietnam's social media landscape is the popularity of the local Zalo social media and messaging app, ranked third owing to its superior messaging features and photo sharing functions.⁴

These digital advancements were enhanced by the COVID-19 pandemic and enabled Vietnam's economy to grow faster. For example, e-commerce was forecasted to grow at 13.8% by 2023, with the fourth fastest download speed in ASEAN at 9.5MBPS.⁵ In the first nine months of 2020, advancements in e-wallets, QR codes, and online banking pushed online transactions up by 75.2%, making Vietnam third in Southeast Asia in terms of visits to online shopping apps.⁶ On the macroeconomic level, gross domestic product (GDP) projections revealed that by 2024, the digitalization of Vietnam's SMEs could contribute USD 24-30 billion to the GDP.⁷

However, despite digital and economic growth, increased financial literacy, and the narrowing gender gap in education and politics, Vietnam still has to tackle some gender imbalances.

With the adoption of the National Financial Inclusion Strategy in 2020,⁸ Vietnam resolved to reach 70% banked adults by 2021 and 80% by 2025. In education, adult literacy reached 94.5% in 2015,⁹ and gender parity was mostly achieved up to secondary level, albeit not beyond that. In politics, women in Vietnam have held increasingly higher positions, including Politburo member (3/17) and deputy minister (11), with the proportion of female deputies amounting to 26.7% of the National Assembly. In employment, the percentage of women in the workforce was almost as high as that of men (72.5% and 82.4%, respectively). However, while constituting 47.7% of the labor force in 2020, women in Vietnam still made up only 26.5% of business owners and CEOs.¹⁰

Digitalization and Women-Owned SMEs (WSMEs)

The most updated definition of SMEs in Vietnam divides enterprises into micro-, small, and medium.¹¹ While micro-SMEs have fewer than 10 employees and a revenue below VND 10 billion (approximately USD 440,000), small-sized enterprises (SE) have 11–100 employees and a revenue of VND 3–50 billion (approximately USD 130,000 to USD 2 million), and medium-sized enterprises (ME) employ 101–200 employees and have a revenue of VND 50–200 billion (approximately USD 2.2 million to USD 8 million) (see Appendix B).

SMEs play a significant role in Vietnam's economy, accounting, as of 2018, for over 97% of Vietnam's 610,637 enterprises. With such a large proportion, SMEs contributed 40% of the GDP and employed 50% of the labor workforce,¹² operating mainly in wholesales & retail trade (39%), services sector (22.3%), manufacturing (15.1%), and construction (13.3%).¹³

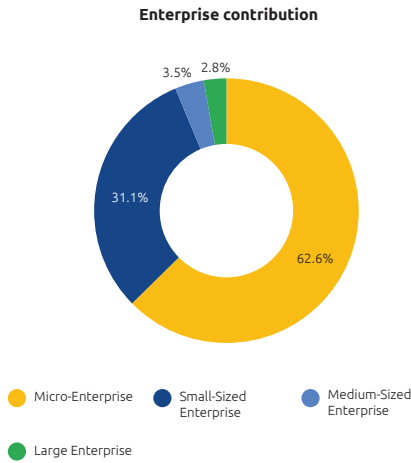


Figure 2.1 The Vietnam SME landscape is dominated by micro-SMEs. Source: General Statistics Office, 2020

Over 590,000 MSMEs in Vietnam in 2018

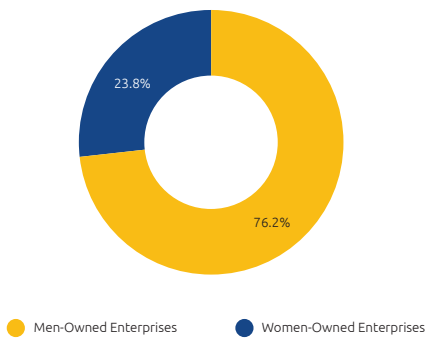


Figure 2.2 Breakdown of Vietnam MSMEs by gender. Source: VCCI (Vietnam Chamber of Commerce and Industry) and USAID, 2018

Additionally, in just a decade from 2006 to 2016, SMEs' contribution in tax and fees to the government budget increased 18.4 times.¹⁴ Among existing SMEs, a growing proportion is owned by women, defined by the government as an SME where one or more women own at least 51 percent of its charter capital.¹⁵ Recently, the number of women-owned micro-, small-, and medium-sized enterprises (WMSME) in Vietnam increased from

21% in 2011 to 23.8% in 2018,¹⁶ which was slightly higher than that of Vietnam's neighbor, Malaysia (20.6%),¹⁷ but lagged behind the average 30–37% percent of all SMEs in the emerging markets.¹⁸

285,689 Women-owned enterprises

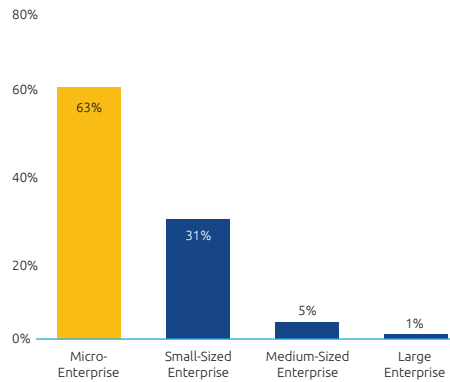


Figure 2.3 Micro-enterprises account for the majority of women-owned SMEs in Vietnam. Source: VCCI (Vietnam Chamber of Commerce and Industry) and USAID, 2018

Distribution by sector

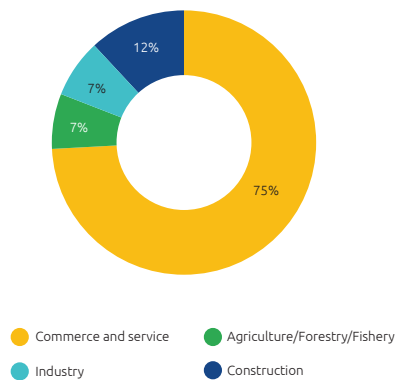


Figure 2.4 Distribution of WMSMEs by sector in Vietnam. Source: VCCI (Vietnam Chamber of Commerce and Industry) and USAID, 2018

Overall, micro-enterprises dominate the Vietnamese WMSME market, with 63%¹⁹ as compared to their small and medium counterparts, possibly because women have a tendency to self-finance and are therefore often starting with less capital (64% as compared to men).²⁰ This trend could be exacerbated by the fact that women are less likely to tap into external financing later (see section 2.2).

Overall, the proportion of WSMes in Vietnam is growing, with a particular focus on trading and services. In terms of location, most WSMes were concentrated in the top tier cities of Ho Chi Minh City (28.26%), Hanoi (26.92%), and Danang (25.1%), while the lowest number of WSMes was observed in Dong Nai (5.12%) and Quang Binh (6.83%).²¹

Additionally, women owners had higher education: 68.6% of female business owners had university degrees and MBAs (Master's in Business Administration), as compared to 71.9% of men, which suggests a narrowing of the education gender gap. While capital was still low, the capital size of women-owned businesses from 2011 to 2018 increased five-fold: from VND 1 billion to VND 5 billion, respectively.

Although available by law (see Appendix C), government support programs such as the SME Development Fund experienced low demand. Among other reasons, this was due to insufficient public relations activities and high mortgage/collateral conditions.²² In addition to government funds, WSMes international grants are also available. For example, the Asian Development Bank (ADB) provides a USD 20.2 million fund to help about 5,000 WSMes to access critical financing and training in Vietnam and the Pacific.²³

During the COVID-19 pandemic, different institutions participated in addressing SMEs' needs in Vietnam. First, the Ministry of Planning and Investment's Small and Medium-sized Enterprises Development Fund (SMEDF) deployed direct lending at 2.16% per year for short-term loans and 4% per year for medium- and long-term loans, which is only about one third of common rates (6–9% and 9–11%, respectively).²⁴ Second, the Asian Development Bank (ADB) signed a USD 5 million grant agreement to support at least 500 Vietnamese WSMes.²⁵ Third, Google Inc. offers digital and business training and a women-focused program named Womenwill.²⁶

Furthermore, with regard to gender bias, a recent article mentioned that banks in Vietnam perceived women entrepreneurs as less knowledgeable about business, as more risky borrowers due to less collateral ownership, as well as perceived their businesses to be less profitable than men's.²⁷ Notwithstanding, Vietnamese female entrepreneurs brought in an average annual revenue similar to that of men, and VPBank, a local bank partnering with the International Finance Corporation (IFC), successfully lent USD 600 million to about 2,000 women entrepreneurs in 2018.²⁸

To summarize, with advancements in gender equality, e-commerce boom, cut-rate financing for SMEs, and dedicated grants for WSMes, the Vietnamese women business owners are well-placed to avail of new opportunities and transform their businesses digitally. And yet, what stops them? Answers to this question were obtained in the interviews conducted with WSMes owners, experts, and members of the advisory panel to identify the current opportunities and challenges of WSMes and to provide actionable recommendations for policy and practice.

2.2 WSME Interview Findings

All WSME participants agreed on the importance of digitalization, although the extent of their adoption of digitalization varied. Interestingly, two participating owners of ME had already implemented an ERP system, while a third ME owner was in the process of doing so. It was also found that WSME participants with higher digital adoption were more resilient while navigating the COVID-19 pandemic.

Pillar 1: Access to Financing

Internal Financing

As shown in Figures 2.5 and 2.6, the most common form of financing was internal, which refers to the process of a firm using its profits or assets as a source of capital to fund a new project or investment. Among personal loans, the interviewees mentioned only personal bank loans. This could have been due to the difficulty in accessing business loans, which was reported to be a significant barrier to SME²⁹ growth. Most SE owners used internal financial sources, such as savings, or borrowing from friends or family. To compensate for the limited capital, SE owners focused their efforts on managing cash flow, e.g., by asking suppliers to extend deadlines or paying invoices after collecting from their own clients.

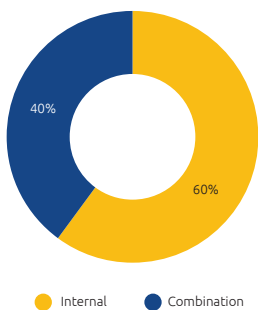


Figure 2.5 Financing sources for SE participants

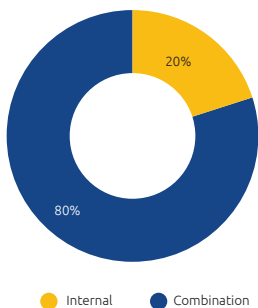


Figure 2.6 Financing sources for ME participants

Furthermore, nine out of 20 participating WSMEs had a co-founder or family member helping them either with only financing on a profit-sharing scheme (not angel investor) or with both financing and management. In several cases, the co-founder or family member participated only in daily management, i.e., without financial involvement.

Consideration Factors for Bank Loans

While five SE participants mentioned having received bank loans, these loans—although invested by SE owners into their businesses—were drawn as a personal loan backed by personal assets/collateral (see Figure 2.7). For SE participants, bank loans were difficult to secure, with five interviewees mentioning that they lacked collateral (not having property under the company registration) or had to use a personal asset as collateral. Other mentioned reasons included that their brand names were not widely known, financial statements were informal or not professional, and/or that they had limited transaction history to show growth and ability to repay interest. In fact, many participating WSME owners (with non-finance background) were not skilled at keeping track of profit and loss (P&L) and other financial statements (only basic bookkeeping of input/output per month), and/or did not have skilled accounting staff to perform these tasks. However, three participating SE owners mentioned that some Vietnamese banks offered unsecured loans (without collateral); however, they found out about these loans too late, when their business no longer needed financing.

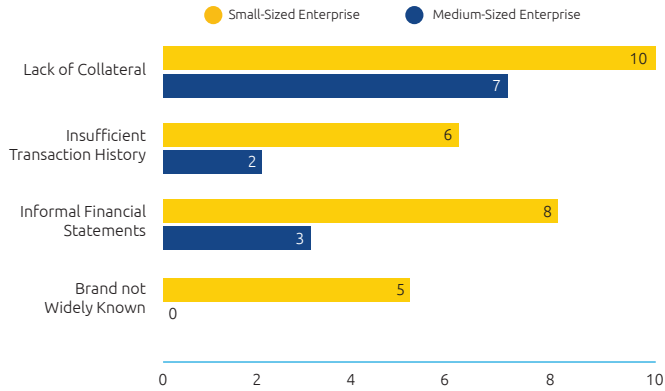


Figure 2.7 Challenges faced by WSME participants in accessing bank loans

In contrast to SE owners, ME owners were more easily qualified for bank loans, which was due to their more formal financial records and evidence of growth. While ME participants still used some internal financing, five of them reported to have clearer P&L and financial statements, with clear evidence of stable growth, and their businesses were mature (above five years) to be deemed trustworthy by the bank. A successful example is an ME participant who received a business loan from VietinBank Danang at a 9.6% lending rate, which is a normal rate.

One major challenge to financing was the SE and ME participants' limited financial literacy (see Figure 2.8). For example, some SE and ME owners had limited understanding of bank processes and unclear future projections. In addition, 16 participants without a finance background found it difficult to understand the financial solutions offered by the banks or how to approach the right type of business capital. Yet, among participants with better financial literacy, two SE and two ME participants understood their current growth stage, had clear projections for future growth, and, therefore, were able to ask for the right loans.

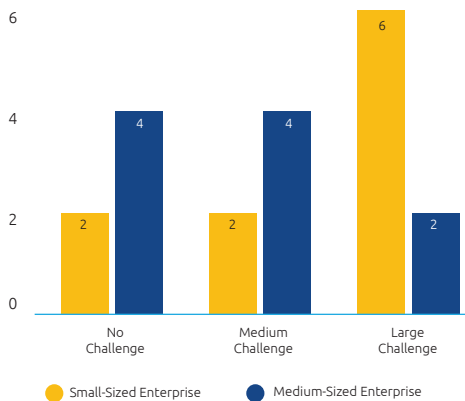


Figure 2.8 Challenges of financial literacy among SE and ME participants

Consideration Factors for Non-Bank Investments

Along with bank loans, other external sources of financing that some participants were aware of included venture capital (VC), crowdfunding, angel investors, and initial public offering (IPO). However, none of the interviewees had secured funding from any of these sources at the time of interview (see Figure 2.9). The five participants who knew about VC reported having some concerns about this source of financing. Specifically, three of these interviewees with finance backgrounds perceived VC as much more stringent in their qualification criteria than banks. This perception was due to strict requirements for documentation about their business license, financial statements, and the owner's skills/experience. Furthermore, four ME participants were

afraid that they would lose control over their company, or that the VC would push for a faster growth or a higher profit margin instead of growing the business slowly and organically. However, the participants believed that VC had the advantage of providing opportunities for companies of all sizes, as long as the enterprise showed potential and promising future growth/earnings.

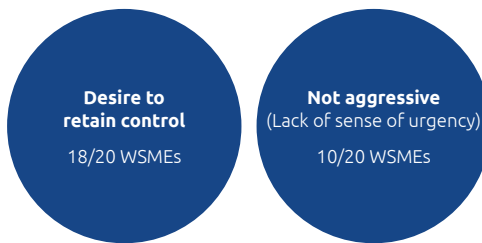


Figure 2.9 Mindset challenges related to accessing financing by WSME participants

Crowdfunding (mentioned by four WSME participants) was seen as the most suitable funding method for startups or new enterprises in the early stages, but was associated with very aggressive growth targets. Three WSME participants who had finance backgrounds/experience mentioned angel investors, but believed that angel investors were mostly interested in startups and industries with high-risk, high-return investments. One education WSME argued that aggressive investors would not be suitable for the education industry.

In her opinion, an education business had to focus on academic quality for its students and teachers and, accordingly, would not be able to meet the expectations of too many stakeholders. Additionally, the aforementioned WSME owner wanted to firmly follow her values and principles in leading her business. Although none of the participants had issued shares yet, at the time of the interview, two ME participants were planning to do an initial public offering (IPO) locally in Vietnam.

However, they delayed these plans until after the COVID-19 crisis, in the hope for a more stable business environment. This can be evaluated as an appropriate decision, as there is evidence showing that IPOs are more suitable when the economy is more stable and stock prices rebound.³⁰

Among the remaining funding methods, none of the participating WSMEs—even when probed in more detail (see Expert Interviews & Advisory Panel)—reported being aware of any government grants or SME-specific debt-financing solutions from banks or private funds, and P2P lending.

Insufficient Evidence on Gender Issues

In our results, there was no convincing evidence of gender-specific issues in accessing financing, though some perceptions of gender-related problems were articulated by the interviewees. Specifically, while all participants stated that they personally did not encounter any gender hurdles in accessing financing, a couple of the interviewed WSME owners mentioned that they assumed that VCs might discriminate against women, which is why they did not approach VCs themselves. Among the participants who did approach VCs, none experienced gender discrimination.



As my business grew, Mekong Capital approached me to invest, but I failed just at the last step because of a service mistake during a mystery shopping visit from the VC. This showed me that I needed to strengthen quality control and consistency in my business processes.

(VN_ME02)

Pillar 2: Access to Mentoring, Networking, and Skills

The key challenges to accessing mentoring, networking, and skills for the interviewed WSME participants were training availability/lack of an experienced mentor, quality of content, and the digital skill of the staff (see Figure 2.10).

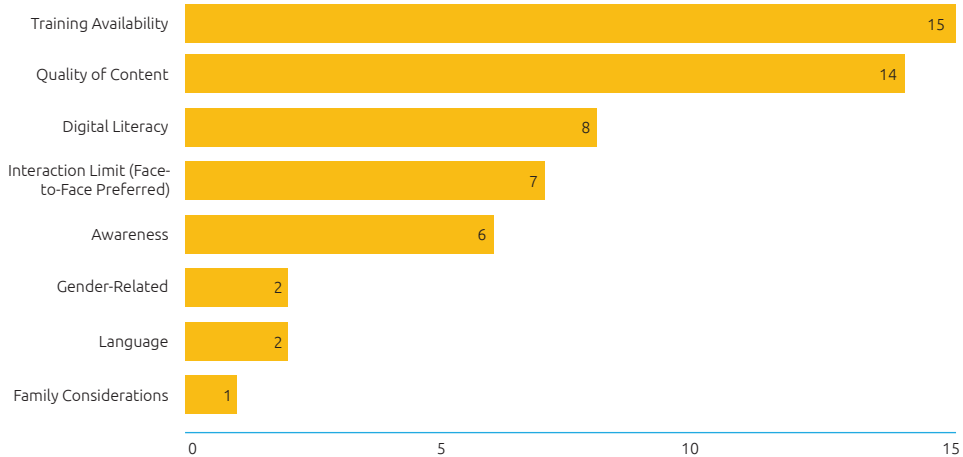


Figure 2.10 Key challenges faced by WSME participants in accessing mentoring, networking, and skills

Mentoring

All participants were aware of the gaps in their knowledge and could use a mentor to help them improve. However, the challenge was to access a mentoring program that could be beneficial given the specific needs of the business. Our respondents were unsure where to find trusted mentors with industry experience, and they were unaware of the concept of a board of advisors (BoA). A BoA is a group of experienced external individuals who can share their industry experience, skills, and network with SME owners without affecting the owner's autonomy or interfering with their control over the business.³¹ Unaware of this option, yet perceiving the lack of like-minded and committed mentors, the interviewed owners built an informal network or relied on a mentoring community on Facebook.³² Most owners knew that they had limited knowledge about business management, corporate governance, strategy, and HR. Accordingly, they wanted to learn from others—peers in their network, experts, friends, and considered these to be informal mentors (who, unlike an official mentor, would not need to be paid).

The main challenges for the owners in this respect were as follows: 1) it was difficult to find a good mentor; 2) they did not know where to find someone who would be a committed mentor; and 3) it was difficult to find a mentor with similar vision/values.



I wanted to have a mentor, but I haven't found anyone who shares the same mindset and values as me.

(Duong Nhat Linh, Midoli Biotek Co., Ltd.)



I am looking for a mentor who has experience in my industry.

(Le Thi Truc Lan Chi, Idocean Co., Ltd.)

Networking

All of the participants stated that they had tried growing their network as a way to access support and training. All respondents saw that having a strong business network was useful for them, and many believed that joining associations/business communities would help them to expand their network. In fact, a few of our interviewees who were members of Business Network International (BNI), Ho Chi Minh City Association for Women Executives and Entrepreneurs (HAWEE), Vietnam Chamber of Commerce and Industry (VCCI), or Young Business Association reported having joined offline trainings in the Vietnamese language. Others joined offline workshops of very popular local consultants, such as Nguyen Duong (a Ho Chi Minh City - customer experience expert). Some joined government-sponsored workshops through training made available to members of the associations, such as VCCI. At the time of interviews, there was a strong focus on digitalization training from VCCI and other associations; yet, this trend concerned only specific areas, e.g., digitalization for finance, digitalization for marketing, while no comprehensive all-in-one digitalization training.



The association I joined offers many digitalization workshops, but for specific areas such as digitalization for finance, digitalization for marketing, etc. I need a more comprehensive all-in-one digitalization training so that I can have a full view of all aspects.

(Nguyen My Hanh, ASEAN Trading & Transport Service Co., Ltd.)



I hope that the government will offer more training about digitalization to staff of SMEs, not only to owners, because when implementing the software, the staff are the ones using the system every day, not the owner.

(Nguyen Thi My Lien,
Chau Thong Manufacturing
- Trading and Services Co.,
Ltd.)

Skills

The majority of interviewed owners (15 out of 20) used various forms of training to address their skill gap, for instance, through online learning or peer-learning. From their network of friends, they learned about marketing from a friend working in that field. Self-learning started with Google searches in the Vietnamese language; the participants who studied abroad (4/20) were more likely to register for a paid short-course delivered in English or a Master's degree to upskill. It was not common for the participants to join offline workshops from business associations because of limited time; instead, they preferred to spend available time focusing on managing day-to-day operations.

Among soft skills, the respondents stated that their English was suitable for business transactions. Few admitted that their English was not good, but the majority (16/20) were confident in their ability to effectively communicate in English with their suppliers.

Along with online learning, the participants also hired skilled staff—for example, sales and marketing staff, which did not appear to pose a challenge. Particularly among SE participants, most owners without a marketing and sales background acquired these skills on the job shortly after launching their businesses, while the participants who did not learn the skills themselves were still able to find experienced sales and marketing staff available for hire.

Mindset and Gender

Two of our respondents believed that being a woman is an advantage in the education and fashion industries.



Being a woman is an advantage in the education industry—the image of a mother creates more credibility and warmth.

(Uyen Phuong Nguyen, Tomato Children’s Home)



Clothing and fashion are an easy industry for women to start a business in based on the woman’s aesthetic taste.

(Mandy Ngoc Pham, Rechic)

There was evidence to support the case of a strong Vietnamese businesswoman, especially in terms of the owner’s mindset and empowerment. To illustrate, some participants thought that it was not difficult for women entrepreneurs to access relevant information and build a network of connections; the only challenge was themselves. Our interviewees believed that, as long as they were proactive and motivated, many opportunities were available to them. In the past—for example, before 2015—it was much more difficult to find information about capital, skills, networks, etc. while now it is easy if the owners set out to find it.



In my opinion, women can learn and understand everything just like men. We don’t have any limitations. It is just about whether you want to do it or not.

(Duong Nhat Linh, Midoli Biotek Co., Ltd.)

One participating ME believed that being a woman was an advantage in business, as women have an optimization mindset and are more careful in considering and making decisions.

Among the participating WSMEs, unmarried owners, including single mothers, did not perceive any major challenges. By sector, WSME owners of commerce and service businesses did not encounter any issues either. They had a very open and positive mindset, felt empowered to do anything, and showed professionalism in their work. Indeed, the Vietnamese business community counts many high-profile women leaders, such as Nguyen Thi Phuong Thao, CEO of budget airline Vietjet, one of six billionaires in the country, Mai Kieu Lien, CEO of the dairy giant Vinamilk, and Tran Thi Le, CEO of the dairy company NutiFood, who was included in Forbes Vietnam’s list of the country’s 20 most inspirational women.³³



In business and in work, I don’t think much about gender. The most important thing is what I can do and how. My business partner respects me because I am very strong and professional. Believe in what you do!

(Nguyen My Hanh, ASEAN Trading & Transport Service Co., Ltd.)

Compared to single business owners, married women who were owners in the manufacturing and distribution sectors were somewhat more affected by several limitations imposed by their family duties, such as having to go home early, the lack of ability to go drinking with clients, or go on long business trips to build business connections. However, they reported finding practical solutions—for example hiring a male assistant to participate on their behalf in social activities that involve drinking and/or getting their husband’s support in raising independent children. Although none of the participating women had small children, they did admitted that running the business was quite difficult when their children were small because they had to spend all their time with the baby.



I could not go drinking late with clients, so I hired a male assistant who can drink and socialize on my behalf.

(VN_SE01)



I can stay up late working until 11 p.m. or go on a business trip for a week because my husband understands and supports me, and my two sons can take care of themselves.

(Nguyen Thi My Lien,
Chau Thong Manufacturing-
Trading and Services Co., Ltd.)

A few respondents expressed concerns about women being more emotional in business and less confident in negotiation. Specifically, a few respondents thought that women owners were more likely to put their personal feelings into business decisions and staff decisions, which could be perceived as a weakness. For example, one participant said she had trouble setting key performance indicators (KPIs) for the male employee on her sales team; she perceived her decision-making as more emotional than her husband’s and felt inferior in her communication skills during negotiations.

A recent study found that, at younger ages, about 50% of male business leaders are confident in their abilities, while women feel much more insecure, with only 32% showing confidence; however, after the age of 40, confidence levels become more equal.³⁴



I think women are more likely to put their personal feelings into making business and staff decisions, so sometimes decisions take too long or are not good for the business.

(VN_SE02)



I think my communication skills are not so good, especially in negotiations.

(VN_SE02)

Pillar 3: Business Processes and Management

All participants felt that digitalization was a must, and a crucial step for their business. However, there were varying levels of understanding of digitalization among the participants, or their knowledge was very vague, particularly among the older generation (40s or older).

Features of Digital Adoption

In the interview data, we observed the pattern that, while most SE participants tended to use stand-alone solutions, usually free digital tools, most ME participants and some advanced SE participants invested in paid solutions and a more integrated approach. Vietnam-based software solutions were preferred for being cheaper, as well as for offering Vietnam-based support and responsive customer service to help with technical issues. Therefore, due to the availability of local options, their adoption might be financially and/or technically easier for SEs.

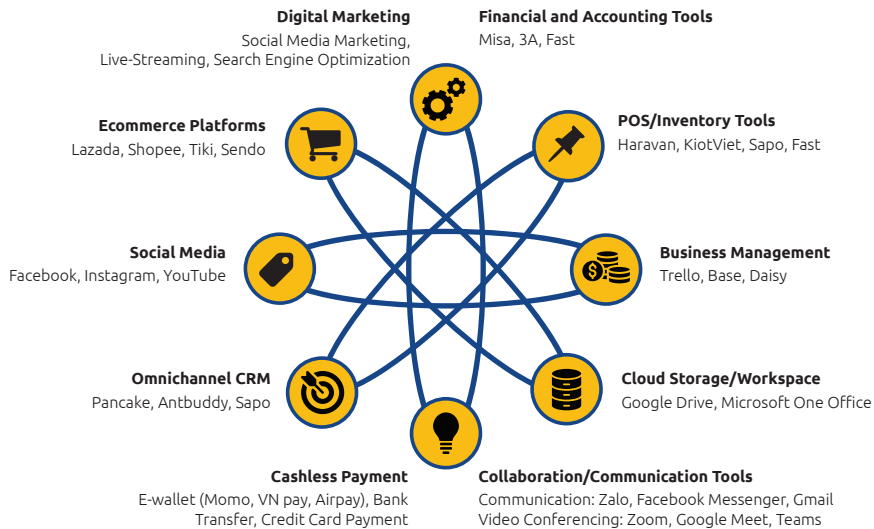


Figure 2.11 List of the most commonly used digital technology tools based on WSME interview findings

All respondents used social media and email for communication, mainly Google Drive for storage, and most used Zoom for meetings or Microsoft Teams for internal communications (see Figure 2.11). Facebook and the locally-owned Zalo were commonly used for both internal and external communication. For example, one owner set up different Zalo groups for different departments (internally) and used Zalo (externally) to connect with Vietnamese customers.

Having a website, using e-commerce platforms, and selling on Facebook were quite popular among the interviewees, especially for business-to-consumer (B2C) interactions. Eight participants had an informational website, and 10 participants (mostly in the services and commerce sectors) had a website with a sales function. All B2C businesses had online e-commerce on all three providers—Lazada, Shopee, and Tiki—and all B2C sold through Facebook, though some also sold on Zalo. Interestingly, while SE participants did not have an integrated solution to keep track of all the channels, ME participants and/or inventory-keeping SE businesses were more likely to use back-end integration—for example, when connecting website orders with the warehouse.

For managing the business, the most popular tool was Misa for financing, and Haravan, KiotViet, and Sapo for POS/sales and inventory management. The reasons underlying our respondents' preference for these local solutions were their responsive customer service support, reasonable price or discounts, and usability. Less commonly, several businesses (more typically, ME ones) used either off-the-shelf or custom-built CRM and HR management tools. Only three ME participants had implemented or were in the process of implementing an advanced integrated system, such as enterprise resource planning (ERP)—a finding that confirms previous reports on the limited adoption of ERP among Vietnamese SMEs.³⁵

For payments, SE participants did cash on delivery and accepted Internet banking transfers. A few used local e-wallets (AirPay, VNPAY, MoMo). Compared to their SE peers, ME participants were more likely to use a wider variety of payment methods.

Challenges to Digitalization by WSME Maturity

The interviewed owners of WSMEs reported having faced different challenges, depending on their maturity level (see Figure 2.12). For example, for high maturity MEs (over 10 years in business) that were more financially stable, the main challenges were processes and people, as they had very traditional processes while the staff had fixed mindsets, so the owner needed to force the digitalization and restructure processes to match the new approach. Some participants experienced this push-back when they tried to implement Slack (for communication) and inventory management/financial software.



Figure 2.12 Key challenges faced by WSME participants in digitalization of business processes and management

For all SE and newer ME owners (12 out of 20), financial resources were a significant barrier to digitalization; yet, this challenge had a different impact on their businesses. For example, SE participants had to decide how many tools or software solutions they wanted to use, because each solution added an expense. For ME participants, the issue was more about the cost of upgrading from fragmented tools to an integrated system. Additionally, SE participants were most focused on sales and revenue and did not pay much attention to or invest in digitalization tools. As a result, they always favored free options and open-source software or tried to get a discount (e.g., the Haravan, an inventory management tool, software promotion which can be used for two years). For example, one participant said she wanted to focus on building her business and adding products before investing in digitalization.



Some of my older staff (40s) refused to use the new system so I had to hire new staff.

(VN_ME06)



I focus my resources and money on developing and completing new products and solutions. After that, I will invest in business management software.

(Duong Nhat Linh, Midoli Biotek Co., Ltd.)

Despite finances being a challenge, none of the participants knew about government support or grants/ programs for the digitalization of SMEs, an issue reviewed later in the Expert Findings and Advisory Panel sections. However, one ME participant in Danang applied for the website building program from the Industry & Trading Department in her city, but had not received a response (for over 2 months) at the time of the interview.

Another challenge mentioned by SE participants was cyber security as a trigger to upgrade to custom-made CRM software, which showed an interesting difference in trust levels among our interviewees. Two respondents (SEs) mentioned issues with cyber security (fear of data leakage from the CRM) and wished to have an in-house system built so that they would not have to rely on a third-party server. Others did not worry about security because they had signed a contract with their third-party service provider about confidentiality and data sharing and they trusted the supplier to adhere to it.

One participating ME in Danang managed 300 employees and recorded high earnings for the last 21 years. Despite her success, she felt that she herself was a barrier to accelerating the digitalization process.



This is my weakness: I am not really good at digital and technology. I don't understand it, so I don't know what and how to use it in my company.

(VN_ME02)

In contrast, other owners with an open mindset had not only knowledge of the process, but were implementing digital transformation in their business, so they emphasized the importance of ERP communication and the need for a clear digital roadmap.



It is crucial to communicate with all staff about the importance of adopting digitalization. You have to be smart about all stages of developing the ERP software; the business owner needs a clear plan and roadmap for this.

(Huyen Nguyen, The Nature Book)

WSME Spotlight I: Nguyen Thi My Lien



Photo of Nguyen Thi My Lien, Founder of Chau Thong Trading and Service

Nguyen Thi My Lien founded Chau Thong Trading and Service Ltd., Co. (<https://tramhuongphuclinh.vn/>) in 2013 to manufacture, distribute, and sell agarwood, essential oils, and related products. Since the business started, she has used very basic digital tools, such as an informational website, and has relied on selling offline at airports and in tourist areas. When the pandemic broke out, offline sales were severely affected, so she turned to online channels. To learn more about these new channels, she proactively searched on Google and Facebook about digital marketing and joined an advertising media group. Through this group, Lien Nguyen learned how to effectively advertise on Facebook, YouTube, and e-commerce platforms, which became great sources of much needed revenue.



I joined the advertising media group about five to six months ago, and I was the only one in the group until now. Learning is expensive (about USD 2,000), but I don't regret it, as learning is always worth it.

Currently, all the learning is paying off, and digital tools are of great help in her business. To promote her products, she uses paid advertising and free content on Facebook, Instagram, YouTube, and TikTok. For communication, she uses cloud storage for data, the Zalo app to communicate internally and externally, and email for official documents. For managing her business, she has a tool to process taxes and finance, FAST software to link production (import and export) with the retail system, and she has recently upgraded to KiotViet (for inventory management). Upon moving to the new solution three months ago, there was some resistance. Seeing some of her staff struggle with adapting to the KiotViet system, Lien Nguyen proactively looked for verified and reliable training materials and took it upon herself to train her team through the digital transformation.



Open and optimistic, Lien Nguyen has great confidence in digitalization, as it has helped her increase her revenue five-fold in one year. For example, she used paid advertising on Facebook to acquire more customers and utilized digital platforms, such as YouTube and Instagram, to promote her products. Lien Nguyen is currently learning about search engine optimization (SEO) and how to post attractive content to build more traffic to her website. After this, she plans to watch more tutorials and instructional videos on YouTube to advance her knowledge.

Pillar 4: Crisis Management (COVID-19)

Impact of COVID-19 on Financing (Pillar 1)

Most of the participating businesses were negatively impacted by COVID-19 (7/20), experiencing a 30–50% decrease in revenue. This is especially true for distribution and manufacturing businesses due to their inability to export output or inability to import parts/ingredients from overseas. One participating WSME lost as much as 90% of her revenue due to the lack of tourists buying her tea and coffee products. Only a few businesses in fast-moving consumer goods were less impacted, and this industry recorded only about a 10% revenue decrease. On a positive note, a supermarket benefited due to steady consumption, and demand for a shop's health supplements went up. The majority entered the "survival mode" by delaying new plans (developing new products, opening new stores, expanding overseas, IPO) and downsizing current business operations (closing or reducing the number of physical stores and focusing more on online channels). A few (three) SE participants reduced their number of staff or converted some full-time staff to part-time (or commission-based) to save costs. ME owners maintained most or all staff and their benefits. Most businesses tried to maintain cash flow by cutting unnecessary costs, delaying payments, renegotiating rent/payments, asking for extensions, or using reserve funds to cover the losses. One participant in the education industry highlighted a non-financial impact on staff and processes.



COVID-19 significantly depreciated the business foundation that I have built over the last eight years, especially the high-quality personnel and processes.

(VN_ME01)

While none of the participants were aware of COVID-19 government loans or grants for SMEs, some (five SEs and three MEs) knew about fiscal support, and three SEs applied for it, but the value was quite low.



For some small businesses, the government offers support by reducing tax or delaying tax, but we are too big and not at high risk during COVID-19 so we do not qualify.

(Le Thi Truc Lan Chi, Idocean Co., Ltd.)



There is a tax extension. I need to fill out the application form; I have not filed for it yet.

(VN_SE06)

One supermarket owner in Danang assumed that the COVID-19 support would be only for certain industries, which implies that existing knowledge about financing (e.g., SME Development Fund, ADB initiative) did not reach those who needed financing aid.



I think that government support during COVID-19 is only for enterprises in severely affected industries.

(Phan Nhu Yen, Danavi Mart)

Impact of COVID-19 on Mentoring, Networking, and Skills (Pillar 2) and Digitalization (Pillar 3)

The only notable feature mentioned by respondents for Pillar 2 was the growth in online training courses, consultants, and mentors, although not all were of good quality.

For Pillar 3, the main result of COVID-19 was an increase in sales-oriented digitalization to help boost revenue, as well as a switch to online communication/working tools to minimize disruptions in operations. A few WSMEs were also inspired to make temporary or profound changes to their business direction. To recover some of the offline losses, all businesses shifted their focus towards online efforts (see Figure 2.13)—for example, by rebuilding/upgrading their website or putting more effort into marketing and e-commerce on Lazada, Tiki, and Shopee. All B2C owners upgraded their social media (Facebook) pages for sales and interactions and were able to derive new revenue from it. To cope with social distancing, all participating WSMEs let staff work from home using existing technologies e.g., Google Drive, Excel, email, software tools/databases (particularly utilized by MEs), and conducted meetings online via Zoom/Teams. In terms of changes to the business direction, one bio-agriculture owner changed the job description and tasks of some staff to capture new markets, while two companies started selling/manufacturing hand wash to alleviate COVID-19 financial losses and take advantage of the surge in demand, which shows initiative and resilience in the face of adversity. See WSME Spotlight II for an inspiring story of how digitalization and an open mindset helped Ms. Van Pham, owner of Success Together, to turn her business around after the COVID-19 pandemic.

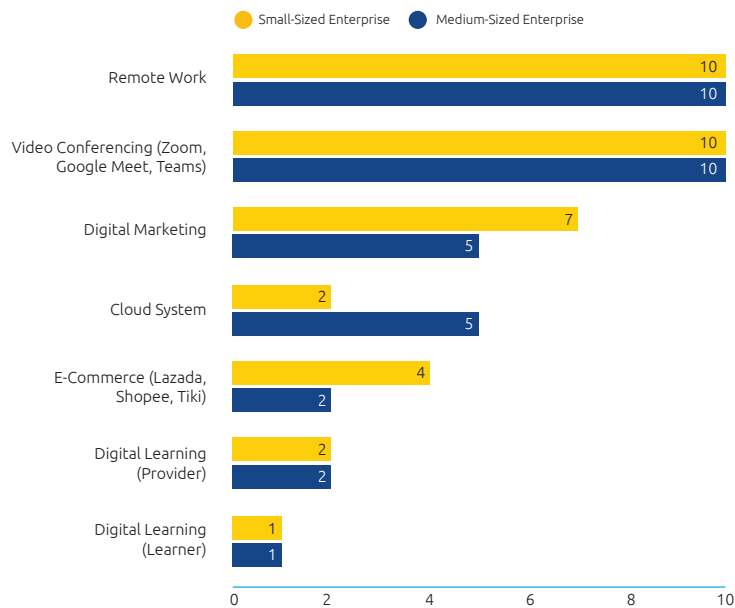


Figure 2.13 Digital opportunities adopted by participating WSMEs to cope with the COVID-19 pandemic

WSME Spotlight II: Pham Thi Hong Van



Photo of Pham Thi Hong Van, Founder of Success Together

Pham Thi Hong Van founded Success Together Co., Ltd. (<https://cellfusionvn.com/>) in August 2016, specializing in the distribution of Korean skin care products in Vietnam. From the very beginning, she built online channels (website, e-commerce on Shopee) and hired a small digital marketing company to provide consulting services. After three months, she proactively engaged in learning from online digital marketing courses, courses about TikTok, and Facebook sales tutorials. In the past, she used a variety of fragmented software solutions; but in 2020, she reviewed their performance and selected the most effective software to centralize her database on: one tool for CRM and integration of online channels, one custom-built software solution (including human resources management, workspace, order management), Zalo for customer service and internal communication, and Facebook for sales. Key challenges to digitalization in her company were staff digital literacy skills, especially among older staff (45 to 50+), and fixed mindsets (among older staff).



I think the staff in their 40s can still learn about digitalization as long as they understand its benefits. For example, I never used Facebook in the past, but now I need it for my business, so I'm learning how to use it.

Van Pham's solution was to recruit younger staff with a more open mindset towards digitalization. She did not encounter gender biases in networking and business and has a strong belief that women can do anything as long as they have passion for it. However, she did think that there were some differences between men's and women's decision-making styles.



Women are more sensitive, decisive, and very quick to catch opportunities. When women have enough passion, they can pursue what they want and succeed. I think men are more likely to take risks than women, and for women, it may take longer to make the right decision.

As spa and beauty clinics shut down during the COVID-19 pandemic, social media became key to Van Pham's success. By making her own livestreams and viral training videos, she built a wide network of resellers and distributors nationwide and boosted sales by 300% as compared to 2020.



2.3 The Future of Digital Transformation for WSMEs

Findings from Expert Interviews

We interviewed four experts who had either a background in digital transformation, were leaders in women's business associations, and/or had a background in SMEs/entrepreneurship with a strong support experience for startups and women-led SMEs in digitalization and innovation (see Appendix D). While interviews with WSMEs helped to uncover each participant's unique set of circumstances and challenges, expert interviews were employed to gain a more strategic perspective. Mainly, experts commented on which issues, opportunities, and challenges affected Vietnamese WSMEs as a whole, with more nuanced differences between SEs and MEs, as well as valuable insights into possible causes and solutions.

Pillar 1: Access to Financing

Source of Financing: Internal

In the Vietnamese market, the most common source of financing was internal finance and/or the owner's personal savings, especially for younger owners (aged between 30 and 40 years old). They tended to have support from friends and family and did not face financial barriers, so they rarely dealt with banks. Locally, SEs faced challenges in accessing bank loans and investment due to limited financial management and the owners' skill, and insufficient transactions to promise growth. In contrast, MEs had more formal accounting departments, clearer financial management and growth records, and could more easily access loans, except in the event of scaling up from medium to large enterprises due to the risks of financial governance.

SEs Faced More Challenges to Access Formal Financing

According to the experts, SEs were more likely to experience major issues in accessing formal funding, especially from banks/formal loans. The banking system and the credit funds feared the risk associated with SEs because their owners had limited skills in financial management,

lacked operating experience, and had limited HR competencies (both owners and managers). Some less experienced businesses had a very good product or idea, but were lacking in the skills required to manage marketing/sales and finance, as well as those essential to operating the enterprise, which were the key criteria for investors to see their potential and invest in their business. Banks could not evaluate the SE's capabilities and potential for growth, as SEs did not have much history of transactions with the banks, their P&L was unclear, and there was no collateral. Additionally, the participating experts pointed out that many SEs in Vietnam did not have a clear separation between personal assets and business assets.

MEs Faced More Challenges When Scaling from Medium to Large

The experts also mentioned that MEs had few challenges in accessing loans and investment, as they had an accounting department to keep track of transactions, along with a clear separation between personal and corporate assets. MEs generally faced more challenges in raising funds when transitioning from medium to large, as the considerations of corporate governance and financial control become more important. Speaking about VC, one expert said that the owner would need to have very good knowledge of her own business before approaching a VC, e.g., understand her business stage, and how the business is going. When prompted, the experts mentioned that they were familiar with P2P funding and crowdfunding, but these were not top-of-mind among SMEs, as they were very new. In addition, angel investors were risky for SMEs due to the such investors' focus on fast cash and short-term returns. The experts perceived no gender issues in WSMEs accessing financing.

Pillar 2: Access to Mentoring, Networking, and Skills

Challenges Related to Mindset, Corporate Governance, and Management

The experts believed that there were no gender differences in networking between male and female owners. Networking did not pose challenges: quite to the contrary, it has become easier to get connections and network nowadays as compared to 10–20 years ago. There were many associations and also women-focused associations and women's unions with activities and opportunities. Some challenges were personal/mindset-related, e.g., changing the perception of businesswomen, encouraging them to see associations as an important part of their learning and growth (not just for sales), and emphasizing the owners' lack of knowledge about corporate governance and management in general. Additionally, the experts also highlighted that female business leaders were less likely to clearly know what they really wanted compared to their male counterparts. The experts believed that women tend to take more time before making a decision, are not as decisive, and are not as straightforward as men.



I think Vietnamese women are very smart and very good. [...] Owners should take the initiative and be proactive to build useful connections.

Women Association Expert

The main purpose of associations is to connect enterprises and the government, as well as to provide opportunities for enterprises to approach the government. From the interviews, it seemed that there were no specific programs for SMEs offered by associations, and activities depended mostly on the vision/interest of the current leader of the association. Government training programs were spread through Vietnam Women's Union and Vietnam Association for Women Entrepreneurs, as those associations are active in supporting women's businesses. Associations offered many offline workshops for sharing, but many SE participants were not open to sharing their difficulties, as they were quite shy and felt insecure.

This was because these business owners thought that they were not as good as more experienced managers (gender of managers was not mentioned), or because they wanted to protect proprietary knowledge.

Challenges Related to the Quality of Courses and Mentoring

Many online courses teaching entrepreneurs how to approach banks, improve their business models, and increase customers became available after the COVID-19 pandemic. For skill building, the priority was learning how to manage the businesses overall, and some of these courses were customized to the needs of the enterprises. There were some challenges about the quality of the courses being unequal, as it depended on the organizer and on how the training was conducted. However, experts highlighted the owners' mindset as the key driver in taking advantage of opportunities. For example, whether women owners already saw the importance of joining these programs.

Many mentors were available, but few were perceived to provide real value. Many WSME participants needed high-quality independent consulting that could offer guidance and instructions, but some mentors and consultants gave advice based on their book knowledge instead of actual experience, which was not so useful to our participants. Additionally, it was difficult for business owners to find a responsible mentors passionate about helping others.

Pillar 3: Business Processes and Management

The experts suggested that the number one key driver of digitalization in any SE or ME is the owner's mindset. In the experts' opinion, it was easier for Vietnamese SEs to go through digital transformation, but harder for mature Vietnamese MEs, especially for those that had been in operation for over 20 years. Vietnamese SEs had a smaller organizational chart, and therefore, many separate solutions at low prices were available to match their requirements; however, SEs hesitated due to their limited budget and more pressing business needs. Mature MEs had more barriers to digitalization due to being owned by older leaders with fixed mindsets, their low openness to technology from both the owner and staff, the very high cost of transformation, and the efforts

required to train staff and change processes (paperwork, steps, controls).³⁶

The experts suggested that there were clear differences in awareness and needs between SEs and MEs. MEs were likely to have stronger teams/skills and more budget; however, they needed a clear roadmap and strategy for digitalization due to the complexity of the business.³⁶ In contrast, SEs were more likely to use free, non-integrated tools (e.g., from Google, Facebook) and did not have the knowledge and budget to integrate. There were also differences in awareness between SEs and MEs. For example, MEs better understood the benefits of digitalization because they had clear needs and were growing/becoming more complex, so there was pressure to adapt. However, SEs have a simpler structure with fewer people, which could still be managed in a more traditional way, i.e., without holistic digitalization.

Factors Affecting Digitalization

The most important driver of digitalization among SMEs was the mindset of the owner; the experts saw that all businesses had to start digitalizing, as it was a necessity. However, the application and implementation depended on the mindset of the owner. The owner had to be very clear on their goals, and purpose of digitalization, as well as find the right and qualified person—staff and/or consultants—to implement it. Push and pull triggers for digitalization included the technology push from AI, Big Data, and Blockchain, on the one hand, and online demand pull from customers, on the other hand. Other drivers for SMEs were the impact of the COVID-19 pandemic, higher readiness due to developing infrastructure in Vietnam and the region, as well as the government's vision to enhance awareness of digital transformation among both businesses and citizens.

Among the key challenges to digitalization faced by Vietnamese WSMEs, the experts cited limited understanding of digitalization and a fixed mindset. The experts believed that most people saw digitalization only as applying technology into work processes, failing to see the holistic transformation of the business in which tools play only a supporting role. According to the digitalization expert, there were a number of key barriers to digitalization for SMEs, which were also confirmed by participating WSEs and WMEs. First, cost was the highest barrier among participating SEs, and some cash-strapped MEs also hesitated.

Second, while poor digital technology infrastructure was not directly identified as a key issue, the fear of personal business data leakage was confirmed by some respondents. Third, the lack of internal HR to apply digital technology was very common among the WSME interviewees. This includes, for example, not having enough staff, or existing staff not being sufficiently skilled, or current staff having a closed mindset. Fourth, the lack of information about digital technology was highlighted among the participants, along with the lack of a digital roadmap or clear direction-setting. Fifth, difficulty in changing business practices due to traditional processes and staff work habits were confirmed by participating WMEs that had been operating for over 15 years. Finally, the expert highlighted that the legal framework and regulations were not developed enough to cover digitalization—an issue that was not directly mentioned by the participating WSMEs.

As an example of a clear digitalization roadmap, one expert described the Ernst & Young Roadmap for SME digitalization.³⁷ This roadmap consists of a three-step digitalization pathway: Step 1) Doing digital, Step 2) Becoming digital, and Step 3) Being digital. At Step 1, SMEs build digital awareness by moving offline records to online data in different departments, e.g., separate software for accounting, sales and marketing, etc. Step 2 involves having one integrated system for reporting and governance, and connecting all the databases together. Finally, Step 3 is related to ERP implementation, where there is one system with all the processes, which also entails changes to the business model, and updates to the governance model to fit with the digital context.

Positive Effects on Equality

Although some married women who were older (50s) and married women in more mature enterprises (over 10 years) had to face pressures due to family responsibilities, the experts believed that digitalization created more equal opportunities for women. For example, it was easier for women to meet digitally and talk about their businesses online to prove that their products or services were of high quality. For women who were married or had children, online meetings had a positive effect from the gender perspective, as such meetings did not affect family time and could replace the need to socialize with business partners, especially in the evening time.

Pillar 4: Crisis Management (COVID-19)

The experts mentioned that they believed that the SMEs that survived the COVID-19 pandemic did so largely due to their strong foundations. This was the result of building a good business in the past, rather than digitalization alone. The experts suggested that the participants were aware of COVID-19 support from the government and grants; they knew that there were strict requirements for qualification, but did not have deep knowledge about the requirements. One expert mentioned that, due to COVID-19, many online courses and sharing sessions became available, but the quality of these courses depended on the organizer and how the training was conducted. Some courses were customized to the needs of the enterprises.

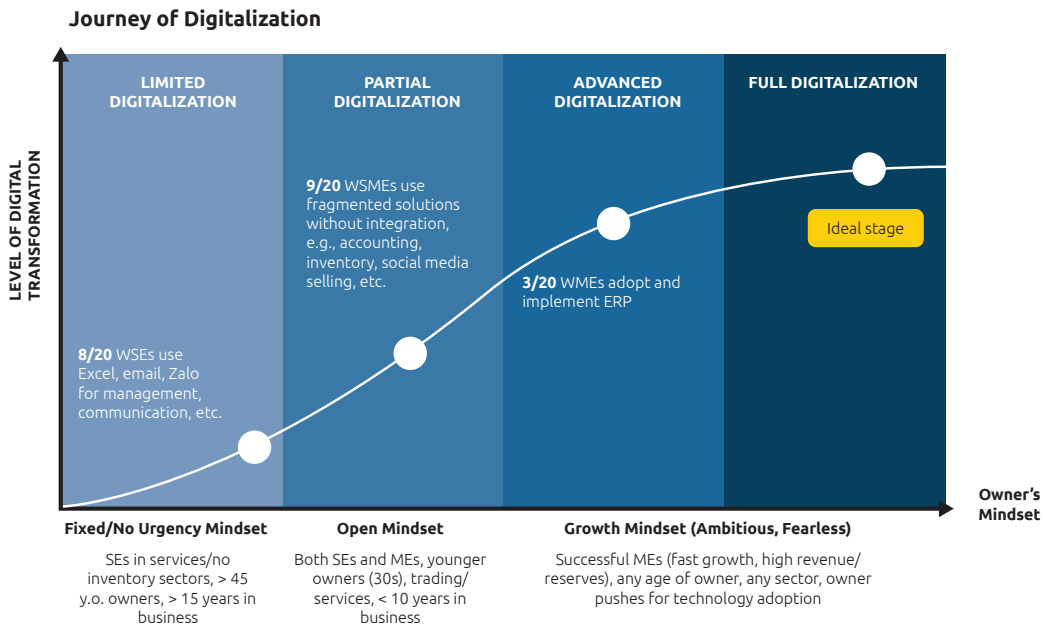


Figure 2.14 Digitalization journey of WSME participants in business processes and management.
Source: Adapted and enriched from Ernst & Young Roadmap for SME Digitalization (see Expert Interviews)

The Ernst & Young Roadmap for SME digitalization (see Expert Interview section) was enriched by salient findings from WSME owners and expert interviews, to build a customized roadmap for participating WSMEs. This roadmap, which was named “Digitalization Journey of WSMEs” (see Figure 2.14) describes the typical profiles of participating WSMEs and assigns them to one of four possible levels of digitalization based on the number of digital tools used in business processes and management, how technologically advanced these tools are, and how much integration/transformation is present (see Chapter 1 for a more comprehensive Digital Maturity Index). At the lowest level of the journey, there are eight out of 20 WSMEs (all SEs in the service sector/no inventory, no MEs) that use basic tools for communication and manual processing of data. At the next level, there are nine out of 20 WSMEs (two SEs and seven MEs in trading/services) that use fragmented solutions from different suppliers. At the third stage, there are a few (three) more advanced MEs where all or most business processes were integrated into one system with back-end integration, e.g., ERP. The fourth stage of full digitalization is more aspirational, a level that none of the WSME participants had reached, as it appears to be more the domain of tech startups in Vietnam. A possible example is Ami, a local ME-sized tech startup that aims to digitalize all connections between citizens and managers or service providers within a single platform. This firm was also featured in the prestigious Forbes Magazine.³⁸

Vietnam Ecosystem Map

Before proceeding to the recommendations, it is important to identify the stakeholders within the WSME Ecosystem of Vietnam (see Figure 2.15). There are five categories of stakeholders: (1) capital providers; (2) government entities; (3) WSME-related NGOs; (4) Network/skill-building association and platforms; and (5) business development services. In Vietnam, WSMEs can receive investment from women-focused capital providers such as BeaconFund. No alternative financing entities are currently utilized by WSME participants. Government entities provide WSME support through ministerial policy and support programs, including a dedicated SME Development Council. Numerous WSME-related NGOs operate in Vietnam, with the scope varying from local to global. For instance, ADB initiated a specific support for Vietnamese women entrepreneurs through the Women Accelerating Vibrant Enterprises in Southeast Asia and the Pacific (WAVES) program. The network/skill-building association and platforms are also abundant, providing options for Vietnamese WSMEs to discover important connections through multiple opportunities. Lastly, this study identifies the role of business development services providers such as InnoLab Asia in helping the growth of WSMEs.



Figure 2.15 Vietnam ecosystem map
 *Please refer to the Acronyms and Abbreviations section.

Among the participating WSMEs, lower levels of digitalization were typically more common in SEs and businesses with older owners (aged 45 years old and older), and in the less complex enterprises (trading and services, without inventory) and/or those that had been in operation for a long time (10–15 years or more). In contrast, more advanced digitalization was no longer dependent on the owner’s age or sector, but was almost exclusively based on the owner’s mindset, such as their openness to digitalization and strong ambition for growth (as confirmed by the expert interviews above and the advisory panel below).

Advisory Panel Findings and Discussion

This section draws on the advisory panel’s comments on the current situation of Vietnamese WSMEs, along with the problems identified for each respective pillar. The focus is more on digitalization as the overarching theme of the report, followed by specific recommendations for policy and practice along all pillars to fill the gaps in the local ecosystem and propel Vietnamese WSMEs towards a more advanced digitalization.



Figure 2.16 Advisory panel methodology process with Vietnamese panelists

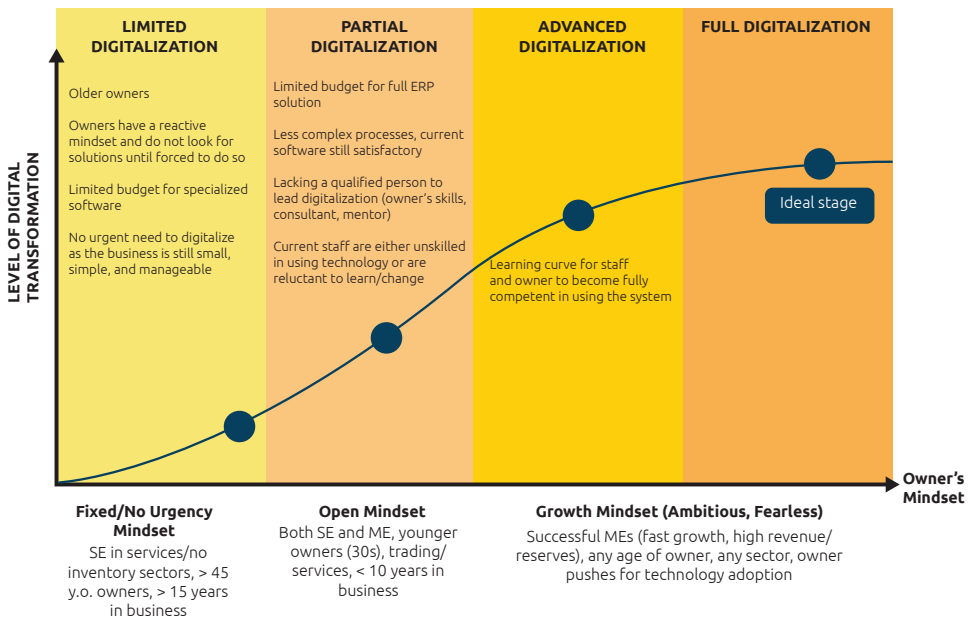


Figure 2.17 Challenges face by WSME participants in the digitalization journey. Source: Original work created for this report

Using the same four-stage model from the Digitalization Journey of WSMEs (see Figure 2.14), a second roadmap was created—namely Challenges to the Digitalization Journey of WSMEs (see Figure 2.17). Figure 2.17 highlights barriers to the transformation of participating WSMEs as they move up to higher levels of digitalization.

When presented with Figure 2.17, all panelists agreed that mindset is indeed a defining trait of the owners' and also the key factor driving the business growth, as well as increased digitalization. This is confirmed by previous cultural research on entrepreneurship, as small business owners often build their companies as a reflection of themselves, i.e., following their vision, ambition, and personality.³⁹

For enterprises at the earliest stage, the panelists believed that a fixed mindset may indeed be the cause of the lack of adoption, but only for some enterprises, while also taking into account other factors, such as the company's business model and operations. For instance, some small businesses may be too simple to require any further digital advancements, and therefore, they do not have a current pressing need to move along the journey. Further up the map, the panelists were quite surprised to see such a high adoption of ERP systems on the top WME level out of a relatively low number of participants in the qualitative study. They considered ERP implementation among three out of 10 participating MEs to be high because, from their experience, ERP in Vietnam was still quite infrequent among MEs (albeit more typical of large enterprises). This is because ERP requires very high budgets and great effort and commitment to implement.

The Need to Standardize the Definition of Digitalization

All panelists agreed that, at present, there is no clear and standardized definition in Vietnam of what digitalization actually means, despite the concept being so popular. This leads to misunderstandings and confusion, as different people have different definitions of the concept, without sufficient knowledge of what digitalization actually entails or any shared understanding of how to digitally transform their businesses.



Digitalization should not be just a trendy fad that is a catchy buzzword; instead it is a must-do, so it should be clear and standardized.

(First advisory panel – advisor from Business Startup Support Center)

When presented with the SMEs Go Digital program in Singapore,⁴⁰ one advisory panelist commented that a similar initiative would be very welcome, yet difficult to implement in Vietnam due to the higher number of SMEs and the lower level of transparency and infrastructure available in the country. Additionally, some panelists commented that, in different provinces in Vietnam, there are currently similar local projects, but only on the provincial level (e.g., they are more common in Ho Chi Minh City and Hanoi). However, the panelists were not aware of any top-down, national-level initiative yet. They believed that it would be best to have a centralized and comprehensive national-level initiative that would also include financing opportunities (see the Recommendations section).

In terms of using local or foreign technology suppliers/tools, the panelists believed that all tools tended to have similar functionalities. Yet, they encouraged the use of local solutions to provide Vietnamese suppliers with more opportunities to develop local technology, which is consistent with our findings that all participating WSMEs adopted local tools. Ultimately, tools are just tools, and the priority is for the owner to clearly know what she wants and what her current digital needs are for her sector and her current growth stage (see the Recommendations section).

Newly Launched Digitalization Government Initiative

One panelist who oversees the SME digitalization drive in Vietnam mentioned that the Vietnamese government has launched a national digitalization initiative, but it is still at an early stage, and many of its aspects of the initiative are still in progress for further refinement to prepare for the implementation.

As shown in Figure 2.18, the Ministry of Planning and Investment’s initiative in partnership with USAID focuses on bridging the gap between four digitalization pillars (capacity gap of awareness and skills, market gap, finance gap, and infrastructure gap), modeled after the Singapore government’s initiative.⁴⁰

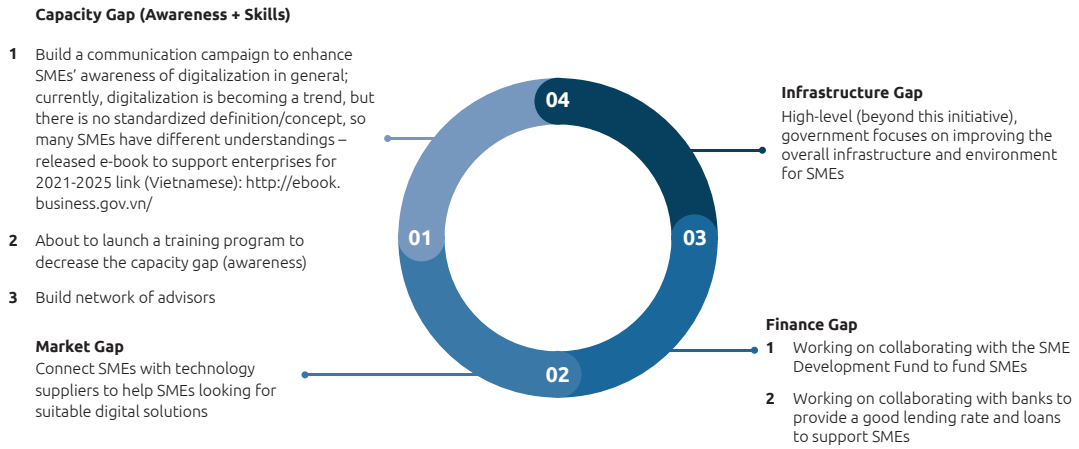


Figure 2.18 Digital transformation program. Source: MPI and USAID, 2021

To standardize the definition and expectations around the concept of digitalization, one panelist noted that the Vietnamese government will soon launch an international standard (ISO) specifically for innovation and digital transformation.

Low Awareness and Usage of Funding Support

Another problem discussed by the panel was the gap between availability of government financial support/private grants for SMEs, WSMEs, and COVID-19-specific resilience funds, on the one hand, and the lack of awareness (or very vague understanding) or adoption of such funds/grants among the participants, on the other hand. Indeed, the panelist who is the CEO of the Business Startup Support Center and a senior member of the Young Business Entrepreneur association said that she herself experienced difficulties in finding information and applying for SME/WSME funding, so she thought it must be even more difficult for other WSME participants to find such information and to apply.

Regulatory Barriers for New Financing Methods

The panelists quoted the example of consumer financing, which is currently growing in Vietnam,⁴¹ arguing that, in addition to the lack of awareness, new financing methods were not adopted due to the regulatory environment.

In particular, they hoped that P2P lending and crowdfunding methods would become regulated and structured, because, in Vietnam, there are many private individuals with substantial funds who are willing to invest in SMEs.

Limited Capacity of Mentors/ Advisors, Limited Integration Between Public and Private Stakeholders

The panelists explained that there was an increasing trend for mentorship recently, but this is mostly informal (e.g., lunch/coffee talk) as there is no standardized body to qualify and approve mentors, and no professional associations of mentors/advisors. Due to the low barriers to entry, there are many mentors in Vietnam, but it is difficult to find a long-term advisor with relevant experience, e.g., in digitalization or in the same industry as the owner. This is also the question of mindset that depends on the owner’s willingness to have a mentor. While having a board of advisors has yet to gain popularity, there is potential to offer training for SMEs to set up a board of advisors, even though there was no indication of where the funding could come from. The ecosystem in Canada was referred to as the best example of a close integration between the public and private sectors, that is yet to be achieved in Vietnam.

Gender Lens

With regard to gender issues, most panelists believed that Vietnamese women are strong and skilled. Based on their experience, most panelists did not encounter gender barriers in Vietnam, nor did they perceive that being emotional was a problem or that it was related to gender. From an investor's perspective, two panelists specifically highlighted that they could immediately recognize financial statements submitted by women-owned SMEs, as they tend to be neater and better organized as compared to financial statements submitted by men-owned SMEs.

One panelist mentioned from personal experience that, as the only female high-level executive in her organization, she had experienced being underestimated at work; in contrast, the other female panelists did not perceive or experience any gender barriers. One panelist stated that she had only consulted WSMEs in Ho Chi Minh City (Vietnam's major economic hub), so she was unable to comment about the gender lens in other areas.



I only consulted Ho Chi Minh City WSMEs, and I did not find any gender issues. I assume that, if you talk to more suburban WSMEs, you may see gender issues more clearly.

(Advisor from SME Business Association)

Key Recommendations

After distilling the problems highlighted above, recommendations were developed based on direct input from the panelists, combined with some insights from expert interviews and supplemented by desk research as needed. These recommendations are separated into policy and practice, where each is directed to be implemented by different stakeholder groups (see Figure 2.15 for a list Vietnamese stakeholders).

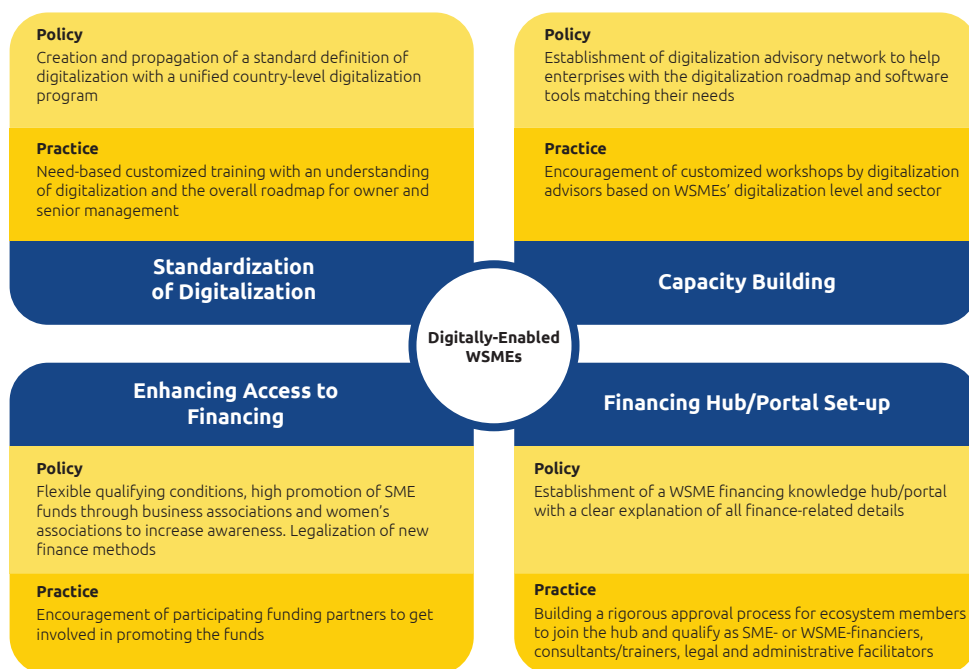


Figure 2.19 Key recommendations for policy and practice

Creating a Standard Definition and Unified Digitalization Program (Pillars 2 and 3)

Policy

The government should create and promote a standard definition of digitalization with a unified country-level digitalization program that clarifies what digitalization is and that includes a clear roadmap, matched with tools, suppliers, consultants/advisors, and funding. The government should build the digitalization program based on the type of need and stage of digitalization, as well as customize the program by industry/sector, because different sectors have different digitalization needs. As a foundation, the government should support the infrastructure for digitalization and add regulations for the software and technology suppliers. With regard to the financial aspect, funding for digitalization should be given not

only to financing partners (banks, etc.) and WSMEs, but also to technological suppliers so that they can create better solutions for WSMEs. In terms of training and skill-building, the government should set a clear roadmap for the training not only for the SME owners, but also for senior management, as the latter will be in charge of implementing any digitalization and influence staff to adopt digitalization.

Practice

Software suppliers, business associations (BNI, etc.), women's associations (HAWEE, etc.), training firms, and consultants should jointly offer training on the basics of digitalization and the overall roadmap. Such training should be tailored to the needs of each business and include the owner and senior management as implementation champions. To address the issue of the owner's mindset in digital transformation,

training should highlight the financial benefits of digital transformation, such as long-term cost savings and revenue increases for WSMEs.

Building Capacity for Digitalization Driven by Policy (Pillars 2 and 3)

Policy

The government should build a digitalization advisory network to assist enterprises in developing a digitalization roadmap and choosing suitable software tools for their needs. Advisors need to be segmented to match the advisors' skills with the needs of WSMEs, e.g., advisors for beginner WSMEs, advisors for more advanced WSMEs needs, etc. Training for staff should focus on improving mindsets and basic/fundamental knowledge about digitalization to better prepare employees for adoption. For example, in the public ecosystem (see Figure 2.15), the Ministry of Labor should educate the nationwide workforce on digital literacy skills.

Practice

Business associations (BNI, etc.) and women's associations (HAWEE, etc.) should directly contact advisors from the digitalization advisory network and invite them to deliver themed workshops based on WSMEs' digitalization level and sector, e.g., workshops for beginner/advanced WSMEs, WSMEs in manufacturing sector, etc.

Increasing Availability of Current Financing Options and Regulating New Financing Methods (Pillar 1)

Policy

To tackle the underutilization of existing financing opportunities, the government needs to address primary issues of high qualifying conditions and low awareness about funding.⁴² For example, mortgage and collateral requirements can be lowered, replaced, or waived in some situations (e.g., for WSMEs in the service sector), and the funds can be promoted in mass media, SME-oriented media, or by directly contacting business associations and women's associations.

For WSMEs that do not qualify for the existing formal loans, the government should legalize new financing methods, such as P2P lending, which, at the time of writing, did not have specific

provisions⁴³ and crowdfunding to allow wealthy Vietnamese individuals to invest in cash-strapped WSMEs throughout the pandemic period and beyond.

Practice

Participating funding partners (e.g., We-Fi, ADB, and related banks) should directly contact business associations (BNI, etc.) and women's associations (HAWEE, etc.) and send representatives/consultants/trainers to conduct workshops for WSMEs. As the first step, WSMEs should be trained on how to do a self-assessment of their current financing needs and be informed about the different types of financing available. Next, training can focus on how to choose the most appropriate financing, how to approach banks/investors, and how to qualify for funding. For WSMEs with a low digital literacy level and that are not part of any associations, NGOs and other development organizations should provide free assistance with basic tasks, such as filling out forms.

Setting Up a WSME Financing Hub/Portal (Pillars 1 and 2)

Policy

The government should create a WSME financing knowledge hub/portal with a clear explanation of all finance-related details. First, such hub/portal should include all financing options available in Vietnam and guidelines on how to approach each of them (e.g., prerequisites and paperwork needed to qualify for bank loan, for VC, etc.). Second, it should explain which financing options are suitable at each step in the development of a business (e.g., for start-up capital, for building a new factory, to finance long-term assets, etc.). Third, it should have a self-assessment tool for WSMEs to identify their own financing needs at the current stage and links to all funding opportunities/grants and the corresponding application process. Fourth, it should provide links to approved financing suppliers for SMEs (banks, investors, insurance agencies, etc.) and links and profiles of approved consultants and training firms to deliver financing literacy advice and training. To support this initiative,

the government needs to allocate funds for setting up and operating the hub, as well as promoting the hub to potential lenders, consultants, and legal facilitators to be included in the hub's offerings. This can be achieved by using the existing funds or with financial assistance from international organizations (We-Fi, IFC, etc.).

Practice

Ecosystem members should apply and go through a rigorous approval process to join the hub and qualify as SME- or WSME-financiers, consultants/trainers, legal and paperwork facilitators, etc. Upon joining the hub, qualified hub members should actively promote it to create awareness and interest among other SMEs and WSMEs in their network and recruit them for funding.

2.4 Conclusions

At present, Vietnam is making great progress in information and communication technology, which is affecting the local economic environment and, accordingly, Vietnamese WSMEs. While all participating WSMEs reported being aware of digitalization and employing digital technology to some degree, several notable barriers stifled adoption. The key barriers to further digital transformation included limited digital skills, resources, and awareness of existing support programs.

Among existing technologies, WSMEs were widely using social media, communication technologies, and online marketplaces in their businesses. While some enterprises made use of business management tools (for POS, inventory, finance/payments), and a few more advanced enterprises had ERP systems. However, we found no evidence of the participants taking advantage of digitalization to access advisors, tap into existing external funding, or reach out for government support.

After presenting the panelists with a summary of findings from participating WSMEs and challenges mentioned in the expert interviews, the advisory panelists identified a few key issues affecting Vietnamese WSMEs. First, there is a need for a standardized definition of digitalization and clear roadmap to apply it; second, there is currently insufficient capacity of mentors and advisors; third, WSMEs have limited awareness and usage of funding for digitalization and COVID-19 relief, which was partly due to limited financial literacy; and fourth, the Vietnamese ecosystem had limited integration between public and private stakeholders.

To overcome digitalization challenges among Vietnamese WSMEs, the experts and advisory panelists made several recommendations to be implemented by relevant stakeholder groups. On the national scale, the government should create and promote a standard definition of digitalization with a unified country-level digitalization program. To enhance the integration between public and private ecosystem members, the government

should set up a digitalization advisory network with pre-approved consultants and trainers to serve WSMEs. With the aim of enhancing digital literacy, training for WSMEs should be customized by industry/sector and stage in the digital transformation and delivered by pre-approved digital advisors, software suppliers, and consultants either through business associations/women's associations or directly to WSMEs. To promote more WSMEs taking advantage of available financing in the short term, the government should promote existing funding opportunities more widely in mass media. If feasible for the long term, the government can also consider regulating new financing methods—for example, P2P lending and crowdfunding for WSMEs that cannot qualify for formal loans. To enhance financial literacy while at the same time strengthening the ties between public and private entities, the government should set up a WSME financing knowledge hub that would list all available financing options, qualifying criteria, and links to approved suppliers. Financial consultants and trainers that were pre-approved on the hub can reach out to business/women's associations or directly to WSMEs to deliver workshops about choosing the right type of financing, customized by sector, current needs, and growth projections.

As the recommendations above suggest, there is a great opportunity for WSMEs to benefit from new government initiatives in standardizing digitalization, increasing access to financing, and boosting financial and digital literacy. However, if systemic issues affecting WSMEs are to be effectively tackled despite the ongoing COVID-19 crisis, it is crucial to strengthen the integration between all stakeholder groups in the ecosystem.

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Chapter 3: South Korea Case Study



3.0 Summary

Purpose of the Study

In this case study, we explore the present and future new opportunities of digitalization for South Korean women-owned small and medium-sized enterprises (WSMEs) and provide insights to address the challenges for all ecosystem stakeholders.

Key Findings

Pillar 1: Access to Financing

Nineteen out of 20 WSME participants in this study used a combination of external and internal sources of financing. These WSMEs used various financing sources, mainly government support schemes and reward-based crowdfunding. Interestingly, the interviewed owners of MEs were more inclined to take traditional financing approaches, such as bank loans. The WSME participants also accessed other financing models, such as VC and angel investments. In South Korea, the VC industry was found to be backed by policy money. The interviewed experts suggested that digitalization has democratized access to financing for WSMEs. However, the WSMEs still reported experiencing challenges in exploring various financial services, such as awareness, gender-related challenges, risk aversion, and government regulations. Therefore, well-designed support is needed to incentivize more WSMEs to use other financial services.

Pillar 2: Access to Mentoring, Networking, and Skills

All interviewed WSME participants acknowledged the importance of mentoring, networking, and skill-building. However, the lack of high-quality (i.e., up-to-date and relevant) content, mentors, and traditional networking style of male-dominated activities were highlighted as top challenges. The participants emphasized the scarcity of female mentors who can serve as role models and the need to optimize the available platforms to build and strengthen women-in-business communities. For example, WSME success stories and regular knowledge-sharing sessions can be popularized through local apps, especially since COVID-19 has pushed more activities online.

Pillar 3: Business Processes and Management

Business processes and management is an essential part of WSME digitalization. In the present study, we found that the popularity and availability of local digital solutions helped to reduce barriers in digitalization for WSMEs in South Korea. As digitalization skills do not come naturally to everybody, localized content offered in the native language (e.g., Naver, Kakao, JANDI, Kmong, Miso) can facilitate the digital adoption process. However, resistance in adoption by the team (both leaders and employees), lack of digital adoption skills, and lack of human resources still emerged as the top four most-cited challenges in business processes and management. WSMEs need to understand that digitalization is not an option, but a necessity.

Pillar 4: Crisis Management (COVID-19)

All interviewed WSME participants believed that government support and digitalization were critical factors in minimizing the negative effect of the COVID-19 pandemic. Fifteen out of 20 WSMEs had already started the digitalization journey before the crisis, and this trend was further enhanced by the pandemic. With consumers converting from physical store visits to online shopping in South Korea, the WSMEs were urged to change how they operate. However, our results revealed that more conventional WSMEs were slower in adopting digital tools due to the limited access to information and talent, which highlights a need for digitalization assistance.

Key Recommendations Specific to Government Institutions

First, the government plays a critical role in supporting WSMEs in various ways, such as providing credit guarantee schemes, creating WSME-specific financial support programs, and investing in small businesses. The government should partner with private banks, financial institutions, and digital financial solutions providers to build a centralized platform to provide SMEs with information and access to available financing options. By giving WSMEs the opportunity to learn more about the different benefits and risks of these financing options, WSME owners can make more informed decisions about their financial plans. Second, creating global networking events (e.g., business matching, trade fairs, business conferences) would also help WSMEs to connect with local and international mentors, with added digital Korean interpretation support to overcome language barriers. Third, the support provided by the government should match each WSME's needs and digital maturity level. The corresponding policy should also cover the implementation process of digital tools and services by extending the support duration (beyond the 6-month standard) for WSMEs to retain skillful young employees.

Key Recommendations Specific to Institutions Providing Assistance to WSMEs

First, private banks, financial institutions, and digital financial solution providers should support the government in providing WSMEs with more practical assistance by educating them on the benefits of accessing financial services. For example, crowdfunding platforms can be used to fundraise and forecast market demand, which, in turn, would help WSMEs to create products that fit the market. Second, all key stakeholders should popularize success stories of digitally-enabled WSMEs—showcasing role models to fellow women entrepreneurs. Korea Venture Business Women's Association (KOVWA) is one recommended institution to collaborate with. Third, the digitalization of WSMEs could also be supported by establishing a community of practice facilitated by business networks and associations. Finally, business associations, communities, and networks should promote relevant government programs that address specific problems faced by WSMEs in South Korea.

3.1 Country Background

Digitalization and Economic Growth

Despite the financial crises in the mid-1990s and 2000s, the growth of South Korea’s economy has been exemplary. According to the World Bank, the “Miracle on the Han River” summarized the rapid growth in real gross domestic product (GDP), averaging 7.3% annually between 1960 and 2019.¹ Ranking the tenth largest economy in the world in terms of nominal GDP, the Republic of Korea has been at the forefront of the leading economies in the Group of Twenty (G20). Although the COVID-19 pandemic has had a dramatic adverse impact on the global economy, South Korea reported a relatively small decline in its GDP of -1%² and has reached pre-pandemic per capita income levels after about 18 months of the pandemic.³

Digitalization is indeed a key driver of South Korean development. The South Korean government is further driving this trend to position the country as a global innovation and technology hub by investing approximately USD 62 billion into the Digital New Deal and Green New Deal. While the Green New Deal focuses on achieving net-zero emissions, the Digital New Deal aims to build foundations for a digital economy through 5G, Big Data, and artificial intelligence (AI).⁴ Furthermore, the effort to foster more innovation continued during the COVID-19 crisis with the establishment of a Regulatory Sandbox Support Center in 2020, run by the Korean Chamber of Commerce and Industry, which helped startups to run innovative practices previously banned by outdated regulations.⁵

Digitalization and Women-Owned Small- and Medium-Sized Enterprises (WSMEs)

Small- and Medium-Sized Enterprises Classification and Gender Proportion

To be classified as a small- and medium-sized enterprise (SME) in South Korea, a firm’s average sales during the past three years must not surpass a certain threshold of the industry in which they operate.⁶ An SME denotes an establishment whose total assets amount to up to KRW 500 billion (approximately USD 463 million),⁷ with sales ranging from KRW 1 billion (approximately USD 0.9 million) to KRW 150 billion (approximately USD 135 million), depending on the industry (see Appendix E for SME classification).⁶

In 2020, SMEs constituted 99.92% of the total number of South Korean firms, while large enterprises comprised 0.08%, as shown in Figure 3.1.⁸ The SMEs’ share of employment was 84% in 2018⁹, and the number of SMEs steadily grew from 3,122,332 in 2010 to 4,019,872 in 2017.^{10,11} In terms of value added, SMEs generated almost 50% of all business sector GDP.¹²

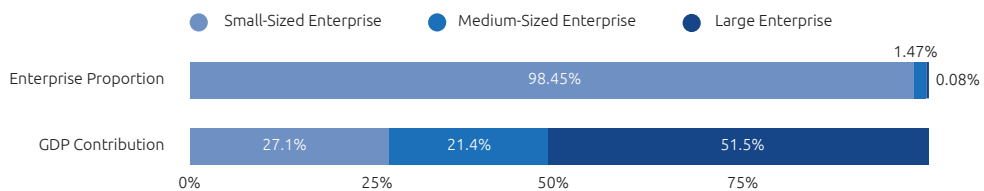


Figure 3.1 South Korean enterprise proportion breakdown by company size and GDP contribution

As of 2020, women-owned businesses made up only 27.1% of the total SMEs in South Korea (see Figure 3.2).¹³ The 5-year survival rate for these businesses was 6.7 percentage points lower than that of men-owned businesses, and women entrepreneurs voiced dissatisfaction with entrepreneurship policies and initiatives.¹⁴

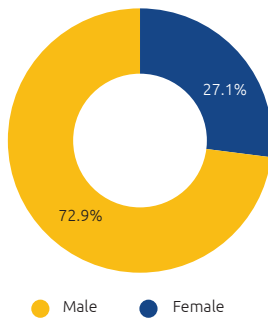


Figure 3.2 SME owner proportions in South Korea based on gender

The cultural context of South Korea is important in understanding the challenges confronted by women entrepreneurs. Confucianism, the leading philosophy for value systems and social structures in South Korea, deeply influences the nation by imposing the principles of accepting hierarchy, strong male dominance, collectivism, and gendered family structure.¹⁵ This philosophy has deeply influenced South Korean women to fulfill gendered family roles and sustain the view that their primary role is that of caretakers.¹⁶ South Korea was ranked the 102nd among 156 countries on the Global Gender Gap Index.¹⁷

Government Support for SME Digitalization

The government supports the growth of women in business by creating various programs, including a women-focused initiative that can be found in the “Stepping Stone Project” by the Korea Technology and Information Promotion Agency for SME. Within the framework of this initiative, selected women entrepreneurs can obtain technology development funds up to KRW 100 million (approximately USD 85,800) for a year.¹⁴ In 2016, 180 women-owned businesses benefited from KRW 198 billion (approximately USD 16.8 million).¹⁴ The government of South Korea started to promote virtual or “untact”¹⁸ working for SMEs and job-matching support to connect more STEM graduates to work for SMEs since 2020.

These are designed to boost the SME recovery from the COVID-19 pandemic and accelerate digitalization.¹⁹

New Opportunities in Alternative Financing for WSMEs

WSMEs in South Korea have benefited from both traditional and alternative financing options. For traditional financing options, the government has provided support for grants, bank loans, and venture capital (VC) investments. Government-backed loan guarantees alone stand at about 3.8% of the nation’s GDP and are regulated by the Korea Credit Guarantee Fund Act²⁰ (see Appendix F for SME regulations and laws). Along with bank loans, the government also supports VC investments, as seen in “The Innovation Venture Capital Funds” program launched in 2018, which has contributed an additional KRW 10 trillion (approximately USD 8.5 billion) in financial support for SMEs until 2020.¹¹

In addition to traditional financing options, emerging alternative financing solutions have also recently gained popularity in South Korea. For instance, the government launched an open banking platform where digital financing solutions providers, such as Kakao, Toss, or Finda, can offer their solutions to borrowers (businesses) with lower credit ratings.^{21,22} Similarly, various crowdfunding platforms, from reward-based to P2P lending, have experienced growing adoption. In 2020, P2P lending became regulated through the enactment of the P2P Act.²³ The corresponding regulation includes a cap limit on the lending interest rate and imposes a minimum capital requirement of KRW 500 million (approximately USD 414,000) on P2P firms.

Digitalization has provided another way of doing businesses for WSMEs, enabling them to tap into a large pool of consumers at a relatively low cost. Digitalization has also enabled remote working, which helps women in both domestic and professional settings. However, gender-disaggregated data on South Korean WSMEs’ experience with digital transformation are still largely unavailable. Therefore, this research aimed to investigate how digitalization offers new opportunities for WSMEs to overcome their gender-related challenges at varying degrees, depending on the maturity of their businesses.

3.2 WSME Interview Findings

All WSME participants demonstrated openness and acknowledged the importance of digitalization for the growth of their businesses. In this chapter, we discuss the dynamics between digitalization and WSMEs to understand whether this openness translates into the adoption of digital technologies in various aspects of these businesses.

Pillar 1: Access to Financing

The majority of interviewed WSMEs (19/20) mentioned using internal financing to run their businesses in combination with external financing, such as government grants, schemes, or loans. Only one ME ran entirely on its own cash resources (Figure 3.3). Two of the interviewees specifically mentioned having benefited from regional government support schemes, which provided annual grants up to USD 44,000 per grant.²⁴ Those who heavily relied on self-financing focused most of their efforts on managing a healthy cash flow.

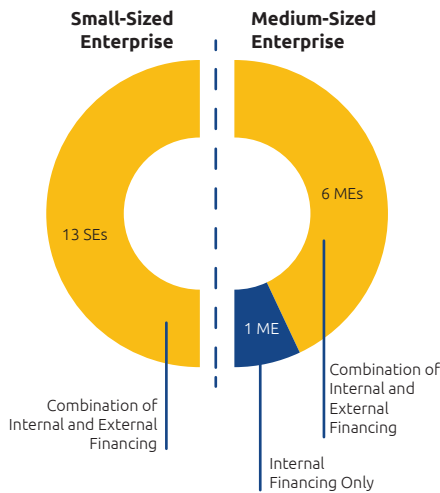


Figure 3.3 Breakdown of WSME financing sources

None of the participants mentioned having family members and inner circles supporting their business financially, except for one SE and one ME. As the husbands of these two women were involved in the companies, the capital was secured from their joint efforts.

Reward-based crowdfunding and government SME funding schemes were identified as the top two external funding sources for both SE and ME participants, followed by venture capital (VC) funding, bank loans, and angel investing, as shown in Figure 3.4. We found a far higher proportion of SEs using reward-based crowdfunding (13/13) as compared to MEs (2/7).

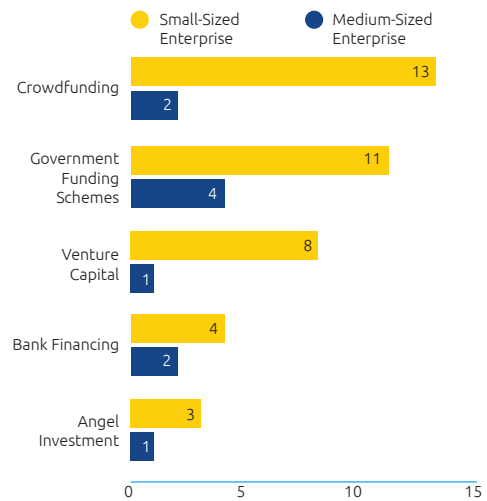
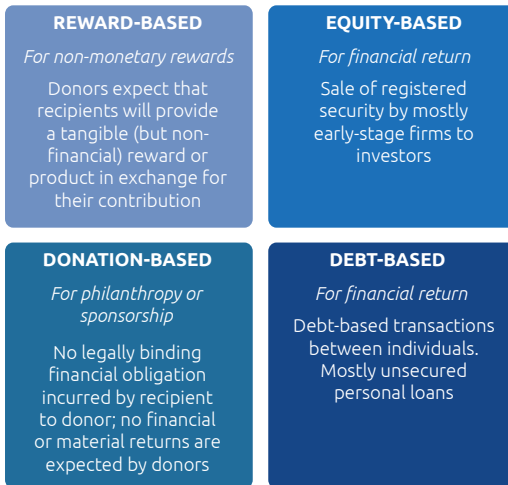


Figure 3.4 Top five funding sources adopted by WSME participants

The Popularity of Reward-Based Crowdfunding Among WSMEs

Crowdfunding in South Korea can be accessed through numerous, specialized platforms, such as Wadiz, Tumbbug, and Kakao Makers. Each platform offers different crowdfunding schemes. The comparison between each crowdfunding scheme is presented in Figure 3.5. Most notably, Wadiz offers both reward funding and equity funding, and is planning to expand its business models to offer more opportunities for SMEs. Wadiz has successfully attracted a total of 3 million members, 10 million visitors per month, and raised a cumulative of KRW 330 billion (approximately USD 282.7 million) in funding between 2016–2021.²⁵

Figure 3.5 Different crowdfunding models²⁶

Other platforms, such as Tumbbug, Kakaomakers, Naver Happy Bean Fund, and BPlus, offer a combination of reward-, equity-, donation-, and debt-based crowdfunding, providing a wide range of financing options that can be used according to risk preference and financing needs. This is demonstrated by the 13 SEs and two MEs that used reward-based crowdfunding to raise funds, validate the product, and build a customer base.



I have raised USD 1.8 million from Kickstarter and USD 2.7 million from Wadiz. Crowdfunding is useful for forecasting market demand.

(SK_SE06)



I used Kickstarter, Indiegogo, JD.com, and Wadiz for different purposes, not just fundraising. Kickstarter is good if you use technology in your product, Indiegogo is great for storytelling. Crowdfunding helps us promote our products globally, and it's important because there's a limit to the domestic market.

(SK_ME05)

The Popularity of Government-Backed Support Among WSMEs

Many WSME participants (15/20) preferred to use government grants because the government provides special programs for WSMEs and young entrepreneurs. Moreover, the due diligence process of government grants is less stringent, making it a preferable option for WSMEs. On the other hand, six WSMEs used bank loans because of the low interest rate and more manageable repayment plan, especially for loans backed by government agencies.²⁷ Bank loans have also become more attractive through digital innovation. For instance, one state-owned bank has built a Blockchain-based loan management platform, which has streamlined the verification processes to reduce funding time from 22 to 10 days.²⁷



We got financial support from the government, and it's helpful.

(Namhee Kim, Breezm)

Other Financing Options Adopted by WSMEs

In addition to crowdfunding and government-backed support schemes, WSMEs in this study also accessed other financing models, such as VC and angel investments. The VC landscape in South Korea is unique as the government is heavily involved, contributing to 45% of VC funding.²⁸ Backed by policy money, domestic VC funds have grown in size over the past few years. In 2020, South Korean VC funds raised KRW 4 trillion (approximately USD 3.36 billion).²⁹ From the interview, it was found that two SEs who raised funding from a VC plan to raise more VC funding rounds in the future. On the other hand, angel investing was obtained by three WSME participants through their personal networks and from investor associations. All three also mentioned obtaining additional benefits from the investment, such as mentorship and industry-relevant knowledge.

Key Challenges Faced by WSMEs in Accessing External Financing

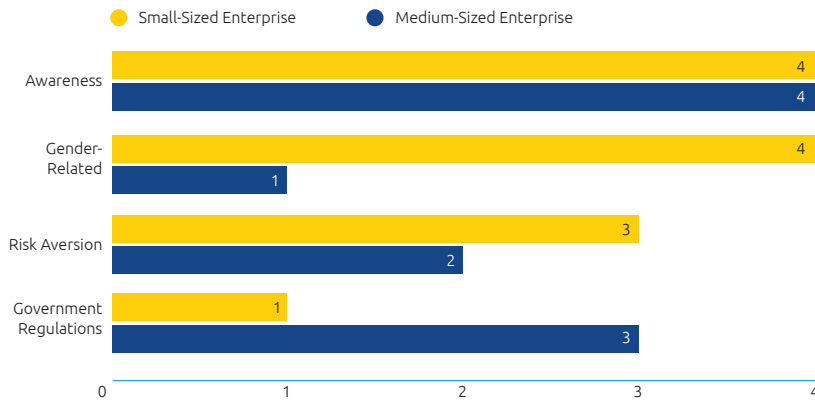


Figure 3.6 Top challenges faced by WSME participants in accessing external financing

Limited Awareness of and Trust Towards Available External Financing Options

There was still limited awareness of the available external financing options, as shown in Figure 3.6. Eight participants showed reluctance to adopt alternative financing models such as P2P lending, because they were unaware of the regulations, making them feel cautious about adopting it. In addition, an ME participant expressed that she had little knowledge about reward- and debt-based crowdfunding solutions when she started her business.

On top of awareness issues, two SE participants also experienced confusion related to the types of financing options they would need. While WSME participants showed curiosity and motivation to find financing information, they were mostly overwhelmed about what they should consider in obtaining funding and when they should start looking for it. An SE participant admitted that she really needed some advice on investments and marketing. The responses indicated a need for assistance that would help WSMEs navigate the growth of their businesses and keep up with digital advancements.

Gender-Related Challenges in Accessing Financing

Although most of the interviewees mentioned not having experienced any gender-related challenges when accessing financing, six WSMEs did view their gender as a challenge. For example, one WSME shared their experience of

being doubted as a woman entrepreneur when accessing government-backed support schemes. She was often asked questions that indicated underestimation of her capability, merely due to her gender.



I sometimes feel discomfort when trying to access government grants. The officials would often ask if I understood technology because I am a woman.

(SK_ME5)

Moreover, in order to get special grants for women entrepreneurs, WSMEs must provide formal evidence of female ownership of the business in the form of a “women-enterprise certification.” This means certification paperwork, unexpected visits to the WSMEs’ office, and lengthy interviews. Despite its controversy, the WSME participants mentioned that this policy had given them significant benefits, such as a granted privilege to secure private contracts up to KRW 50 million (approximately USD 42,549) instead of KRW 20 million (approximately USD 17,019), available only for women-led businesses.³⁰

Risk Aversion

Five WSME participants reported risk aversion to using various available sources of funding, including government-guaranteed bank loans and other non-public financing options.

One SE attributed her reluctance to approach newer financing methods to the lack of policy and regulations, which might result in uncertainties that could then put the business at risk. One SE participant shared that her first company went bankrupt due to bad financing decisions. Since then, she lost her risk appetite to seek future external funding for her company.



After my first company collapsed because of wrong investment and wrong decision making, I had the prejudice that getting investments could be risky, so I have not focused on raising funds.

(SK_SE7)



There is a lot of uncertainty in P2P lending in terms of government policies and regulations, so I feel it's risky [to adopt it now].

(SK_ME3)

Limitations of Government Regulations

Despite the exemplary support provided by the South Korean government through various grants, schemes, and loans, four WSME participants still faced challenges in using them. Government support schemes tend to focus on the number of businesses supported rather than the quality of the businesses, resulting in the funds being dispatched in multiple small grants, which were claimed to be insufficient for the needs of SMEs. In addition, government grants can only be received through designated public institutions, creating a barrier to WSMEs that have no preexisting relationship with such organizations. The lack of government regulations is also a reason behind the reluctance of three WSMEs to explore alternative financing options, such as P2P lending.

WSME Spotlight I: Jeonga Kim



Jeonga Kim (far left) and Her Family (Cacao Family Team)

Jeonga Kim is the co-founder and CEO of Cacao Family, a small-sized enterprise aiming to discover local resources and create a sustainable community. Together with her husband, they opened Cacao Family in 2017. The company offers healthy and fairtrade cacao using Guatemalan cacao to create healthy food for conscious consumers.

Jeonga explained how digitalization has helped her kick-off the business. The Cacao Family have benefited from reward-based crowdfunding campaigns, not just to raise money, but also to introduce their products to a wider audience and identify potential consumers more strategically.

Digitalization has also helped the Cacao Family reduce the negative impact of the COVID-19 crisis. Prior to COVID-19, their business relied on a brick-and-mortar store to serve customers, and their revenue decreased drastically for the first two months of the lockdown. They quickly pivoted to an e-commerce platform to provide their products online and also used Live Commerce as another way to increase sales, which was really effective for their business. Through Live Commerce, which combines instant purchasing and audience participation through

chat or reaction buttons, Cacao Family continues to connect with customers, building strong trust and reliability of the brand and subsequently improving their sales.

Jeonga continues to explore new opportunities using digital tools and platforms. For example, she connects with cocoa farmers in Guatemala over video streaming to provide real-time education content and creates virtual tour programs. Furthermore, she is actively implementing an enterprise resource planning (ERP) system to improve the company's production.



Digitalization has helped me as a business owner and a mother of five children. It has really helped me in many aspects of my venture, from fundraising to crisis management, during the pandemic. I believe that, through digitalization, if I can run the business of my dreams, anyone can do it, too.

Pillar 2: Access to Mentoring, Networking, and Skills

All the WSME participants understood the importance of mentoring, networking, and skill-building, and the COVID-19 pandemic had accelerated the process. Most of the WSME participants (15/20) had sought learning opportunities through non-conventional online courses (both paid and free) and joined virtual events to build a more global network. They used Facebook to connect with prominent figures in the industry and stay on top of trends. They also used KakaoTalk (local app) to engage in discussion forums. LinkedIn was not found to be popular among the participants and was used only for international networking.

Mentoring

All WSME participants preferred to receive one-on-one mentoring from people they could trust—either through inner circles or professional networks. Six ME owners mentioned seeking advice and recommendations through personal connections. Twelve SE owners, on the other hand, accessed mentorship through various routes, such as personal connections, networking events, and government mentorship programs.



I sought mentorship from people I met through networking events, but I also utilized my connections with people that I had worked with before. I need to learn from people I can trust. I need their advice to help me make more informed decisions for my business.

(SK_ME01)

Although all the participants actively sought mentorship, they struggled to find female mentors. The WSME participants believed that female mentors could serve as a role model for more junior WSMEs.



I do feel that women have more business empathy. [It's a pity that] there aren't many female experts that we can learn from in this country.

(SK_SE5)

Networking

Four WSME participants mentioned feeling specifically uncomfortable with South Korean networking culture, because they considered it to be a male-dominated activity. On the other hand, they believed that meaningful business connections should be built through personal connections, and that these are best maintained through face-to-face interactions.



[Networking] is important, and it's important to meet people in person and find opportunities. Online [interactions] are not enough.

(Hawon Kim, Haenyo's Kitchen)

Despite the limitations, digitalization was reported to play an important role in improving their networking experiences. Digital tools offered WSMEs opportunities to reach prominent business figures and fellow entrepreneurs remotely without the pressure of engaging in uncomfortable activities, such as going out for drinks with male colleagues. For example, KakaoTalk provided a platform for WSMEs to network with fellow entrepreneurs in group or private chats. Additionally, two WSMEs mentioned LinkedIn as a tool to connect them with potential partners and communities abroad.

Skill-Building

All WSME participants reported having a good experience with the use of digital technology for skill-building purposes. However, their main sources of knowledge have been limited to free resources, as opposed to paid online courses.

The majority of the WSME participants (18/20) indicated a desire to seek further knowledge to support their business' growth, as illustrated in Figure 3.7. The most popular learning topic mentioned was how to adopt advanced digital technology, followed by human resources (HR) and management—confirming the openness to digitalization highlighted at the beginning of this chapter.

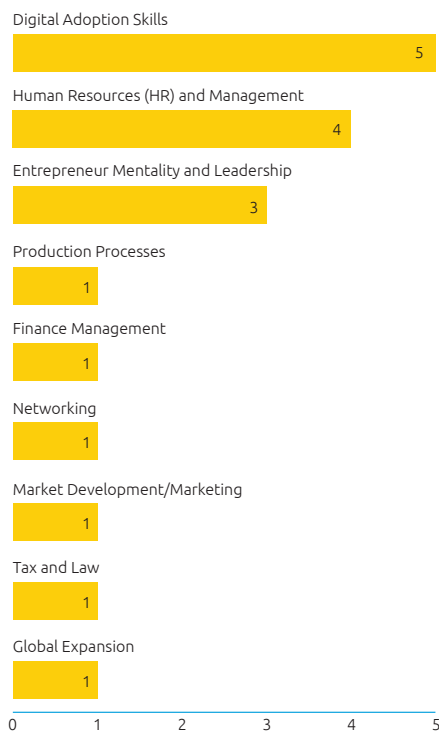


Figure 3.7 Learning topics suggested by WSME participants

Advanced digital adoption skills were considered necessary to help the WSMEs integrate complex tools into their business processes. This was demonstrated by five WSMEs who mentioned that they wanted to adopt more digital tools. This appetite for learning about digital technology in WSMEs indicates an existing awareness that prompted them to improve their skills.



When I read about many different technologies, I need to think about where my company is and what we can achieve. [The technologies] I read about might not be relevant for us. I study [them in theory], but I can't actually put it to practice.

(SK_SE3)

Key Challenges Faced by WSMEs in Mentoring, Networking, and Skill-Building

As depicted in Figure 3.8, the key challenges in accessing mentoring, networking, and skills for WSME participants were the lack of high-quality content and mentors, their experiences as women, and the limited face-to-face interactions posed by learning/networking via digital means.

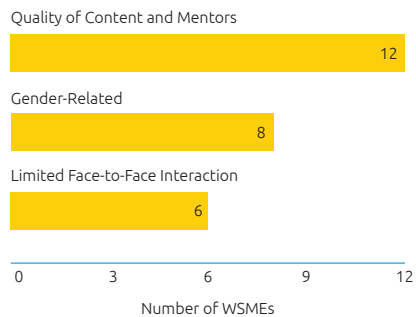


Figure 3.8 Key challenges faced by WSME participants in accessing mentoring, networking, and skills

Limited Availability of High-Quality Content and Mentors

All WSME participants indicated awareness of the government-funded learning and mentoring programs. However, 12 WSMEs expressed concerns about the low quality of these programs, demonstrated by irrelevant content and disengaged mentors who did not meet the WSMEs' expectations. Furthermore, the participants highlighted the outdated curriculum as a concern, emphasizing that the focus on theory rather than practice in these programs (both online and offline) did not reflect the rapidly changing business environment, including the new COVID-19 reality.



I feel that the government-funded learning programs can be very boring. I feel like [they are] wasting my time sometimes.

(SK_SE13)

As compared to the previous year, the South Korean government increased its annual budget for SME support by 26% to KRW 16.8 trillion (approximately USD 14.3 billion) in 2021.³¹ Nine WSME participants wished for the government to evaluate the current mentoring and learning programs by leveraging public-private partnerships to improve the offerings and better suit WSMEs' needs.



There are many places for me to learn about entrepreneurship these days, such as through YouTube, Google, or webinars. If you search for a topic online, many things come up easily.

(Jenny Lee, Zenny Closet)

Gender-Related Challenges

Eight WSME participants explained that they had experienced discomfort during certain networking events. Commonly in South Korea, networking involves activities such as going out for drinks after work, dinner, golfing, or sauna spas, which often put women in uncomfortable situations. Since business in South Korea is generally considered to be dominated by men,³² digitalization has helped to reduce this uneasiness.



I was not comfortable drinking with men for networking purposes. I gave up.

(SK_ME03)

Due to these challenges, four WSME participants wished to find more female mentors who could not only provide industry insights but also serve as role models. The participants pointed out that having more female mentors could help WSME ecosystems in South Korea thrive.



I wish to find more women mentors in my field to share insights and expertise.

(SK_ME7)

Limited Face-to-Face Interaction

Despite the important role of digital communication in overcoming gender-related barriers in networking, six WSME participants still believed that face-to-face interactions are essential. Two WSME participants recognized that combining two approaches worked for them. They utilized LinkedIn for online networking and leveraged conventional government institutions, such as Korea Trade-Investment Promotion Agency (KOTRA) and Korea International Trade Agency (KITA), for offline networking.

Pillar 3: Business Processes and Management

All participants had adopted at least one digital tool across various functions within the company structure, as shown in Figure 3.9. There was also a visible preference for local applications among the WSME participants because of their Korean language functionality and localized user experience.

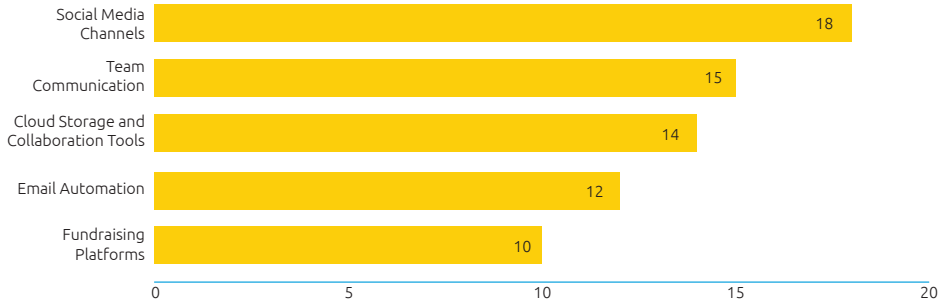


Figure 3.9 Top five areas of digital adoption among WSME participants

Popularity of Local Applications Among WSME Participants

Local platforms and applications are increasingly popular in South Korea, with Naver and Kakao becoming tech giants. Kakao, founded in 2010, has expanded its businesses in the banking, entertainment, games, beauty, mobility, media, content, and e-commerce sectors.³³ Naver, founded in 1999, offers additional services, including news aggregation, community forums, the community networking service app BAND, the e-commerce platform SmartStore, as well as global services like the messenger app LINE and video messenger SNOW.³³ Kakao and Naver were closely competing as the third largest firms in South Korea as of June 2021, after Samsung Electronics and SK Hynix.³⁴

As shown in Figure 3.10, various local tools were utilized by the 19 WSME participants in conjunction with non-local tools. This strong preference was mainly due to the specific Korean language functionality and user experience (UX) that understand how South Korean users behave when using software applications.



We used to use Slack [for team communication], but we changed to JANDI, because Slack was only available in English, so it's hard to learn how to use it.

(SK_SE9)

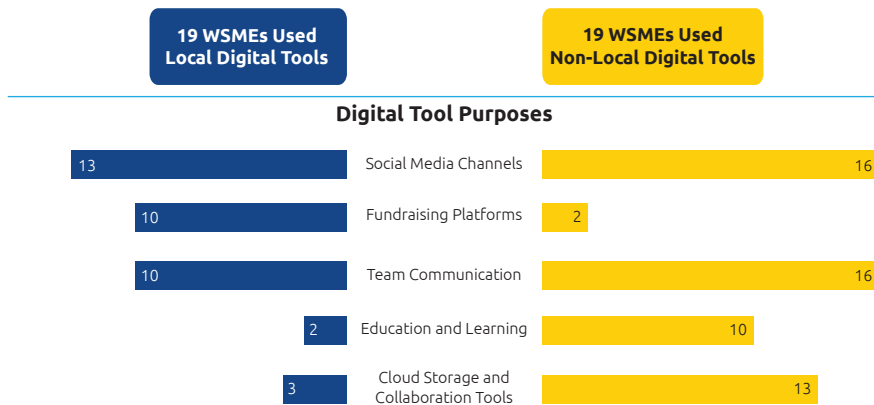


Figure 3.10 Use of local and non-local digital tools among WSME participants

There appears to be a local application for every part of a company’s business process. Naver is the company most widely utilized by the WSME participants (11/20) for team communication and collaboration, cloud storage, marketing, loan applications, open banking, crowdfunding, and payment systems. Other popular choices included Kakao’s and Naver’s products which were also used in various business areas. Applications such as Kmong for HR, Miso for inventory management, and HelpM and ModuSign to help in the cybersecurity department, among other choices, were also adopted by the interviewed participants.



Having digital capabilities has helped us reach customers more efficiently. For example, we implemented a digital payment system such as KakaoPay and NaverPay.

(Claudia Hyun, LivingD)



We’ve been exploring various local e-commerce platforms on top of optimizing our online shop.

(Junghee Kim, Uwell Deco)

Key Challenges Faced by WSMEs in Digital Technology Adoption

As shown in Figure 3.11, the WSME participants reported that their biggest challenge was the willingness of leaders and/or employees to actively support and participate in the digitalization process. The WSME participants indicated that they need support in improving their digital adoption skills and talent management.

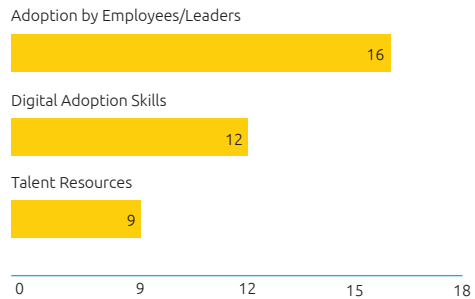


Figure 3.11 Key challenges faced by WSME participants in digital adoption for business processes and management



I’m not good at digital technology. We have many analog-based projects and most of the work is based on manual labor. We don’t fully take advantage of technology. We only use Microsoft Excel for accounting/tax issues, Facebook Messenger app for communications, and Google Drive.

(SK_ME7)

Low Adoption by Leaders and/or Employees

Sixteen WSME participants pointed out that their team showed reluctance in adopting new tools, as technology adoption would cause changes in a company's business processes. Ten participants mentioned that some of the employees viewed technology as a burden, while six others mentioned that leaders viewed technology as a disruption to workflow. Two participants mentioned that age could also pose a challenge, as older employees tend to resist adopting new tools and processes. This highlights the need to implement change management to be part of the digital transformation process. Change management should include redirecting and redefining human resources, business processes, and budget allocations.



Until last year, it was difficult for the older staff to adapt to new digital tools. But, they have left the company and now we're working with people in their 30s who don't have the same problem.

(SK_SE6)



Internally, it took over a year to make my team adopt the technology. They were hesitant because they thought it would have given them more work to do. Initially, I encouraged two key people to start doing it, but it was tough for me to explain how to use it and why we have to use it. It takes time for people to understand digital technology. Employee adoption is challenging.

(SK_ME02)

Lack of Digital Adoption Skills

Twelve WSME participants suggested that choosing the right applications to address the business needs can be challenging. Therefore, digital literacy and skills become essential enablers of digital transformation. Four WSMEs specifically said their educational background did not help them understand technology-related work. They struggled to hire the right talent that understand technology, and they found it challenging to implement new technologies themselves. Local apps helped them to overcome this challenge by incorporating the South Korean context into user experience.



I wish I knew how to integrate all these exciting technologies. We need developers and internal people who can communicate with developers.

(SK_ME02)

Lack of Human Resources

Nine WSME participants experienced difficulties in adopting technology because they lacked existing talent and technical knowledge. They struggled to hire people with technical skills, and, at the same time, the team was not ready to adopt the tools themselves. To improve readiness, the team needed digital adoption training. However, training is time- and resource-intensive.



We know how important it is to integrate advanced technologies with our fashion business nowadays. We have been thinking about developing AI-based offerings for our customers, but it's not an easy task. We need a reliable team of developers who can do that for us.

(SK_SE02)

WSME Spotlight II: Hyo Sook Yang



Hyo Sook Yang (right) with her husband (4D Land Inc.)

Hyo Sook Yang is the chief executive officer of 4D Land Inc., a medium-sized enterprise that develops educational tools and programs. 4D Land Inc. offers services specializing in creative education and possesses some 60 patents and utility models. 4D Land Inc. aims to nurture future talents equipped with creative, scientific, and technological minds. The company provides diverse creative education programs based on science, technology, engineering, arts, and mathematics (STEAM) for all age groups. Since its foundation in 2003, the company has grown into a global supplier of teaching materials with 38 branches worldwide.

Hyo Sook started her career as a kindergarten teacher before she formed the company, which was initially a project that was created by her husband—designer of the 4D frame modules. Hyo Sook explained that they started it with simple tools to provide educational materials that integrate various fields, such as traditional schooling areas, science, technology, engineering, and arts. In order to make their product more practical and useful, they decided to complement their product with a coding education program. This integration helped 4D Land Inc. to leap forward with their success, with thousands of students participating in the events and competitions.

After the outbreak of the COVID-19 pandemic, the company faced its biggest challenge yet: reaching their customers who were mostly conventional educational institutions. They were no longer able to host international events or sell their products to schools. Fortunately, Hyo Sook was able to reach out to her support networks, such as Korea Venture Business Women's Association (KOVWA), from which she received advice on digitalizing her content and business processes.



We built a coding program, incorporating technology into our product to enhance the experience of our customers when they are developing toys. By allowing customers to code, they can realize their imagination and create a moving toy using various kinds of materials. This process allows us to create customized education for each one of our students. Ever since we started this coding program, our revenue has increased. We are confident that we can build a better product by adopting advanced technologies.

Pillar 4: Crisis Management (COVID-19)

Since 2020, on top of support in the form of employee tax waivers and other emergency aids, the government of South Korea has also been delivering a stimulus package. The support, amounting to KRW 215.75 trillion (approximately USD 183.6 billion), was designed to minimize the negative impact of COVID-19 and support SMEs' digital transformation journey.³⁵ Fourteen WSME participants in this study indicated that they had benefited from the government support, and it helped them to survive the pandemic.

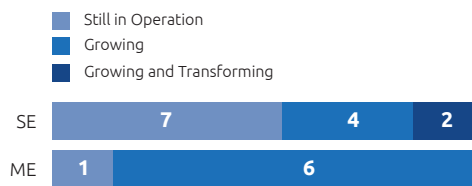


Figure 3.12 The state of the participating WSMEs' businesses during the COVID-19 pandemic

As shown in Figure 3.12, 12 WSME participants were growing and transforming. Two SEs even indicated that their businesses continued to thrive and transform after the COVID-19 crisis. The authors observed that these two entrepreneurs leveraged their position as small businesses (leaner than medium-sized enterprises) to be more agile during the pandemic. Due to their business agility, a crucial ingredient to staying competitive in today's volatile and disruptive environment, and due to their optimal digital adoption, these two SEs responded faster to fast-changing market conditions and grew their revenue more quickly than the other participants.

Digitalization Enabled WSMEs' Recovery Amid Global Uncertainty

Fifteen WSMEs had already started the digitalization journey and were at various degrees of maturity before the COVID-19 crisis, and this was even further enhanced during the pandemic (see Figure 3.13). WSMEs had to embrace the new reality and started adopting digital solutions to pivot their businesses. As consumers shifted from visiting physical stores to online stores in South Korea, the WSME owners also felt encouraged to adapt and boost their online presence.

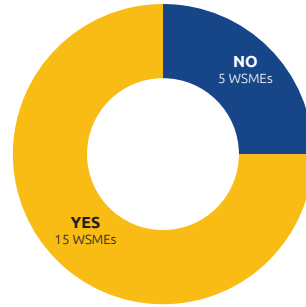


Figure 3.13 Number of WSMEs that experienced digitalization enhancement due to COVID-19



Overall, we became more adaptable during COVID-19, and we quickly embraced digitalization because we knew that it could help us survive and thrive. Gradually, we increased our social media presence, utilized Facebook ads, and joined Naver Smart Store, as well as other e-commerce platforms.

(Jenny Lee, Zenny Closet)

Nevertheless, eight participants (four SEs and four MEs) admitted that surviving did not come without challenges and they had suffered drastic negative impacts at the beginning of the pandemic. While their operational expenses remained the same, their revenue decreased. As they adapted to the situation, they regained their pre-pandemic revenue.



Our business is highly dependent on export (~98% of sales). So, when COVID-19 hit, it was difficult to maintain our revenue, because, to secure sales, we usually needed to physically visit our markets.

(SK_SE06)



[COVID-19] has definitely impacted the export industry. I was struggling to go back and forth between factory inspections [and in between the ever-changing COVID-19 restrictions]. We needed to develop a new product, but it was almost impossible to do it because, naturally, for our business, people would want to come and visit to check the products.

(SK_ME05)

Digital Maturity Index for WSMEs

The Digital Maturity Index for WSMEs was adopted from the Digital Maturity Index proposed by Cisco (2020) with some modifications to better suit the research framework in this study.³⁶ As depicted in Figure 3.14, the rubrics were made up of three dimensions: namely, digital strategy and implementation in 1) financing; 2) mentoring, networking, and skill-building; and 3) business processes and management. Each dimension assessed an essential aspect of WSMEs' growth. The index categorizes the participating WSMEs into four levels of maturity: Indifferent, Basic Adopter, Intermediate Adopter, and Advanced Adopter (see Appendix A for a more detailed explanation of the calculation).

Digital Maturity Index	Indifferent	Basic Adopter	Intermediate Adopter	Advanced Adopter
Pillar 1: Financing	Company did not use any digital financing sources	Company started to use digital financing sources	Company used multiple digital financing sources	Company used digital financing to leverage competitiveness
	Rate: 0%	0 < Rate ≤ 33%	33% < Rate ≤ 66%	66% < Rate ≤ 100%
Pillar 2: Mentoring, Networking, and Skills	Company did not use any digital mentoring, networking, or upskilling platforms	Company started to use digital mentoring, networking, or upskilling platforms	Company used multiple methods of digital mentoring, networking, or upskilling platforms	Company adeptly used a digital mentoring, networking, or upskilling platform to increase competitiveness
	Rate: 0%	0 < Rate ≤ 33%	33% < Rate ≤ 66%	66% < Rate ≤ 100%
Pillar 3: Business Processes and Management	Company only used digital communication tools and/or social media	Company started to use basic digital solutions in its business processes and management	Company used multiple basic or intermediate digital solutions in its business processes and management	Company used multiple basic, intermediate, or advanced digital solutions in its business processes and management
	Rate: 0%	0 < Rate ≤ 33%	33% < Rate ≤ 66%	66% < Rate ≤ 100%
Final Score	20 x Pillar 1 Rate + 20 x Pillar 2 Rate + 60 x Pillar 3 Rate			
	0–15 points	16–30 points	31–45 points	> 46 points

Figure 3.14 Digital Maturity Index rubric

The index is illustrated in Figure 3.15 below, where each participating WSME is represented by a colored bubble, with large bubbles indicating MEs and small bubbles representing SEs. The results showed that the majority of participating WSMEs (18/20) made more progress in their digitalization journeys, while two WSMEs remained uninterested in the digital transformation journey. The most digitally mature participants were an SE in the textile and apparel industry and an ME in the health industry, followed by five SEs and three MEs in the Intermediate Adopter stage. All companies in the Intermediate and Advanced Adopter stages focused on digitalizing their business to improve their general operations and service delivery, deliver better customer experiences, and expand their market.

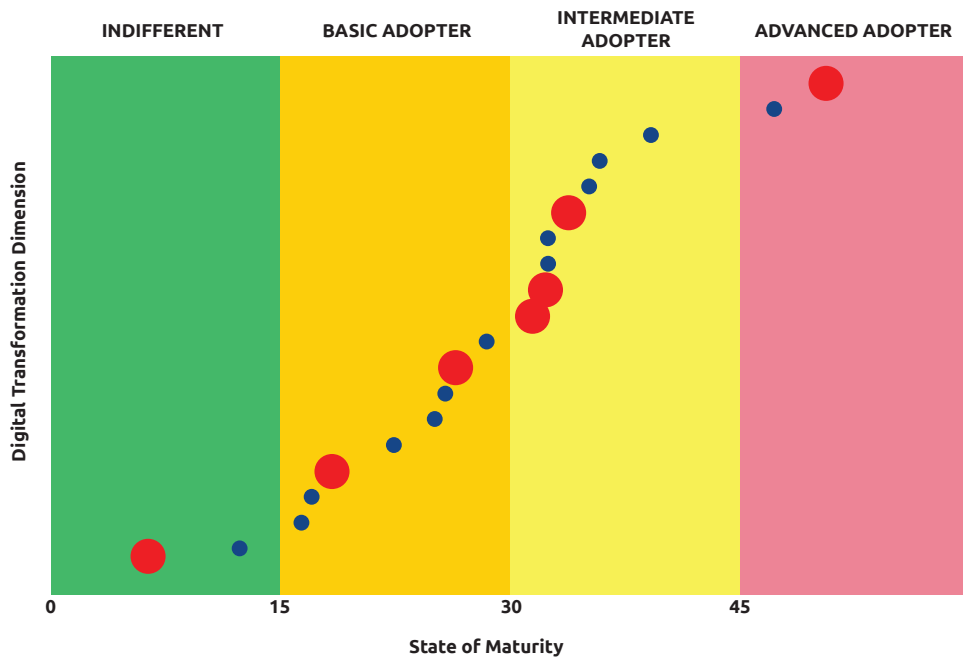


Figure 3.15 Digital Maturity Index result for the participating WSMEs (large bubble = ME, small bubble = SE)

Furthermore, six SEs and two MEs categorized under the Basic Adopter stage faced more challenges in their digital transformation journey than those in the Intermediate and Advanced Adopter stages. The lack of digital skills and talents were the top challenges, followed by cultural resistance to change, as discussed in the previous sections. Whereas for one ME and one SE in the Indifferent stage, their mindset and outlook on digital transformation hindered their digital transformation. WSMEs need support in understanding why digitalization is no longer an option, but rather a necessity. They need reliable sources to learn about what it is, and how to start adopting it.

3.3 The Future of Digital Transformation for WSMEs

Expert Interview Findings

A series of interviews with four experts in investment, women-in-business association, startup community accelerator, and digital transformation were conducted (see Appendix G for list of experts). While WSME interviews helped us to understand the current situation, pain points, and hopes of the participating female entrepreneurs, the expert interviews were carried out to gain more insight into the WSME ecosystem in South Korea.

Pillar 1: Access to Financing

Digitalization Improved Access to Financing for WSMEs

The experts suggested that digitalization streamlines the funding application process—making it more efficient, especially for small businesses. As found in the WSME interviews, gender-related issues were only present in accessing government-backed grants, as business owners needed to meet directly with the evaluators. Thus, the reduced need for face-to-face encounters helped to ensure objectivity in the funding application and evaluation process. This was consistent with the findings from WSME participants, where the online application approach has enabled their businesses to be evaluated more objectively by the financial service providers.



Digitalization ensures fairness in the financing application process because an application can be judged more objectively. Nobody knows who's behind the application. As long as the company shows traction and customers love the product, [gender] shouldn't become a challenge anymore.

(Eunielle Yi, The Ventures)

WSMEs Required More Ecosystem Support

The experts highlighted that WSMEs needed more support from the public sector and the ecosystem, such as accelerators and investment organizations. They also needed help with accessing the stock market (i.e., becoming a listed company), gaining more financial independence, and focusing on growing their businesses. One expert specifically highlighted the need to prioritize funding distribution to SEs to give more foundation support to start their businesses.



More funding should be distributed to early stage companies with structured guidelines [to help them start their business].

(Mikyung Park, FORCS)

Pillar 2: Access to Mentoring, Network, and Skills

Safe and Inclusive Environment for WSMEs to Network and Learn

One of the interviewed experts suggested that female entrepreneurs' low rate of participation in attending networking events before COVID-19 could be due to discomfort. In South Korea, networking involves activities such as golfing, drinking alcohol, or sauna spas, which often put women in uncomfortable situations. However, not participating in informal social gatherings and networking events could hinder WSMEs from gaining and nurturing important connections. The experts expressed the opportunity presented by COVID-19 to reduce these gender-related issues, as it increases the number of diverse online events and gatherings. The experts believed that they would see more and more women in online learning and networking events in the future.

Systemic Support and Community Events for Skill-Building

One of the interviewed experts suggested that support for skills development needed to be conducted systematically. Necessary programs for WSMEs should include: 1) gender lens leadership training and coaching; 2) digital adoption skill programs; or 3) specialized coding schools that teach programming. These solutions exist, but they work in silos, and since key ecosystem stakeholders are not coordinating their efforts, the impact may not be as significant. Another expert suggested community-based events to develop the capacity in entrepreneurship and push for digital transformation. Startup contests aimed at women or other women-centered events can be presented as catalysts to drive more women into the SME and startup ecosystem and to provide more support from the community.



We need to improve the quality of programs offered by women-in-business associations to [help WSMEs] keep up with the latest trends and era. More importantly, the programs should match WSMEs' needs.

(Ji Young Kim, Startup Women in Korea)

Pillar 3: Business Processes and Management

Digitalization is a Necessity

The interviewed experts highlighted that digitalization was once considered a way for companies to gain a competitive advantage, but after the COVID-19 pandemic, it has become a matter of survival and an integral part of operating and managing a business. Moreover, experts mentioned that the government had offered digitalization and remote work grants, giving access to tools that otherwise would not be accessible to WSMEs. All participating experts agreed that the government needs to create a more long-term vision and a clear supporting guideline, especially for early-stage WSMEs, to reduce problems in the adoption process.



South Korean WSMEs must leverage digitalization to catch up with the world.

(Mikyung Park, FORCS)

The Popularity of Local Digital Tools

During the interviews, each expert mentioned at least one local digital tool to describe the digitalization process for SMEs in South Korea. Aligned with the WSME interview findings, this result confirms the popularity of local software applications and platforms. For instance, Naver and Kakao were adopted by entrepreneurs in the fisheries and farming industries to reach consumers during the COVID-19 crisis. This high rate of penetration and adoption of these apps is partly due to the customized user experience for South Korean users. These local products offer more opportunities for conventional businesses in South Korea to embrace digitalization, preventing foreign languages from becoming a barrier.

Pillar 4: Crisis Management (COVID-19)

Digitalization for Business Resiliency

Despite negatively impacting nearly all aspects of society, experts agreed that the COVID-19 pandemic had also offered new opportunities to businesses. Aligned with the WSME interview findings, one expert mentioned that most had already begun their digitalization journey before the pandemic. The COVID-19 crisis accelerated the adoption—forcing a shift towards virtual collaboration and communication. The expert shared that not only were the WSMEs implementing digital tools faster as a means of survival, but companies also adopted tools that they had not previously used before that have proven critical in building business resilience.



COVID-19 has provided many new opportunities to existing and new businesses through digitalization.

(Janice Han, the Korea Institute of Startup & Entrepreneurship Development)

South Korea Ecosystem Map

The stakeholders within the South Korea WSME ecosystem can be categorized into four groups: (1) government entities; (2) capital providers; (3) network/skill-building associations and platforms; and (4) NPO/NGOs and research/development organizations. Government entities include various ministries such as the Ministry of Gender Equality and Family, the Ministry of Science and ICT, and the Ministry of Startups. There are also entities that specifically focus on women entrepreneurs, such as the Korean Women Entrepreneurs Association, Korean Women’s Development Institute, and Seoul Women Up. There are several types of capital providers in South Korea, including venture funds such as Sopoong, TheVentures, Yellowdog, and Kakao Ventures. Digital platforms are also on the rise, with companies such as Wadiz, Tumbbug, and Kakao Makers offering reward-based crowdfunding as alternative financing. Other ventures also provide development and acceleration programs beside funding, with examples that include Krypton, Sparklabs, and Shinhan Financial Group. For the purposes of network/skill-building, WSMEs can participate in organizations such as Chamber of Commerce, Korea Startup Forum, Korea Venture Business Women’s Association, Startup Women in Korea, and WE-network. Various local and NGOs/NPOs and R&D organizations that support WSMEs can also be found in South Korea: Asia Foundation, UNDP Korea Office, Seoul NPO Support Center, The Asan Nanum Foundation, and Shinhan Financial Group Hope Foundation. Finally, the Women’s News was identified as a South Korean media that focuses on women entrepreneurs and WSMEs, a platform that could showcase role models and success stories to inspire women entrepreneurs.



Figure 3.16 South Korea ecosystem map

*Please refer to the Acronyms and Abbreviations section.

Advisory Panel

The advisory panelists included representatives from WSME associations, a social-impact accelerator, and digital transformation experts (see Appendix G for the list of panelists). The findings from WSME and expert interviews were presented to and discussed by the panelists as a series of problem statements grouped under the four pillars. The panelists used their experiences and knowledge as a basis to propose both practical and policy recommendations.



Figure 3.17 Advisory panel methodology with South Korean panelists

Pillar 1: Access to Financing

WSMEs Received Short-Term Financial Support, but Lacked Long-Term Support

The panel agreed that the growth of female entrepreneurs needed to be continuously supported. However, this task is not easy, as it requires long-term investment and planning, and it is limited by time and resources. The panel acknowledged the limitations in government-backed SME support schemes, arguing that it is nearly impossible to set up detailed, continuous plans beyond the 5-year mark due to the rapid pace of innovation. Therefore, the dependence of WSMEs on government support was argued to be not sustainable, as the government has a shorter (5-year term) focus. As the government's main agenda is employment/job creation, private service providers, business associations, and other organizations providing SMEs with support should take more initiative to assist WSMEs in growing their businesses.

Pillar 2: Access to Mentoring, Networking, and Skills

WSMEs Faced Gender-Related Challenges in Accessing Mentorship and Learning Programs

The panel confirmed the gender-related challenges faced by WSMEs in mentoring and networking. At the same time, it was acknowledged that it is hard to find female mentors in specific industries who are willing or have the capacity to guide their juniors. The panel assumed that a generational gap causes differences in perception and understanding of the industry, challenging the building of meaningful and successful mentor-mentee relationships. The panel concurred that government and key ecosystem stakeholders

should work together to connect WSMEs with local and global mentors. Moreover, while government programs are considered outdated and old-fashioned, online private education platforms have a very high potential to offer more flexible and competitive learning content tailored to entrepreneurs' needs.

Pillar 3: Business Processes and Management

Mismatch Between WSMEs' Needs and Available Government Support

The panel suggested that the government should consider WSMEs' digital maturity level when designing support programs. The panel indicated that there was a mismatch between WSMEs' needs and available government support programs. For example, MEs can only redeem grants for manufacturing and product development activities when, in fact, they might still need basic digital tools, such as software for administration. The study confirmed that in the Digital Maturity Index, the majority of the ME participants (6/7) were at the Indifferent or Basic Adopter stage.

WSMEs Faced Issues with Talent and Team Adoption in Integrating Digital Technology into Their Business Processes

The panel highlighted that, in South Korea, employees seek stability and job security, so promising young professionals want to go to big firms and not to smaller ones. At the same time, WSMEs faced internal team conflicts when trying to implement new technology. The panel also commented that the government-supported programs offer only short-lived (circa 6 months) security, after which the SME job becomes very volatile.

The panel agreed that this issue can be solved by a good implementation of change management. First, the executive-level management in the WSME should understand that digitalization is now essential for operational efficiency. Second, the decision to adopt certain digital tools must not be forced upon the team but decided together. Lastly, adoption can only happen through a continuous feedback and communication loop with all stakeholders.

Pillar 4: Crisis Management (COVID-19)

WSMEs Need Practical Digitalization Assistance to Become More Resilient

The panel agreed that the government has a critical role in helping WSMEs survive and thrive during the pandemic by providing digitalization grants. The fund can not only compensate for the declining revenues caused by the COVID-19 crisis, but also be used by WSMEs to accelerate their digital adoption and build resilience. However, the panel agreed that more conventional WSMEs were slower in adopting digital tools due to limited access to information and talent. Therefore, and considering that implementing digital change in business processes can be complicated and expensive, WSMEs need practical assistance throughout their digitalization journey.



We have a wide range of policies and programs for SMEs in South Korea, but they are not well-designed to suit the needs of the businesses. We need to leverage data, so we can redesign these policies and programs and make them more meaningful for WSMEs.

(Won Hee Kim, Merry Year Social Company)

Policy and Practical Recommendations

Based on the synthesis of the findings from the WSME and expert interviews, we formulated several recommendations for the South Korean government and other key ecosystem stakeholders. Direct input from the panelists was combined with insights from WSMEs, expert interviews, and a literature review. All recommendations to address the issues faced by WSMEs in South Korea were structured according to the four pillars.

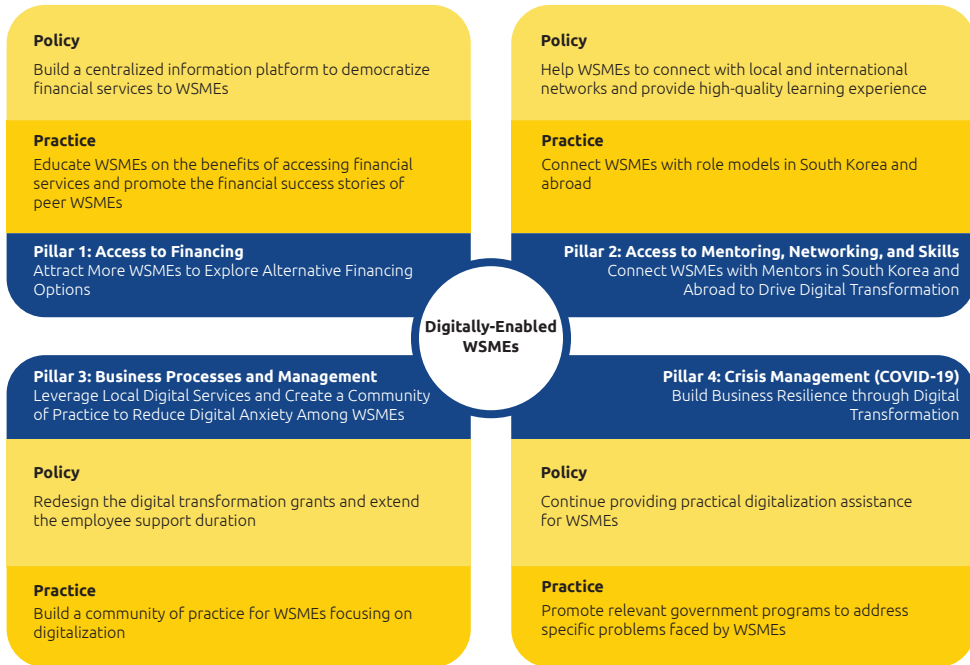


Figure 3.18 Recommendation summary

Attract More WSMEs to Explore Alternative Financing Options

Policy

The government should partner with private banks, financial institutions, and digital financial solutions providers to build a centralized platform to provide SMEs with more information and better access to available financing options. By giving the WSMEs opportunities to learn more about the different benefits and risks of these financing options, WSMEs can make more informed decisions about their financial plans.

The Financial Services Commission (FSC) of South Korea should enforce the Online Investment-linked Finance Act to protect funders and beneficiaries. The government also needs to be more firm in monitoring and evaluating financing services to encourage more WSMEs to explore available options.

Practical

Private banks, financial institutions, and digital financial solutions providers should collaborate with business associations, such as Korea Venture Business Women's Association (KOVWA) or Women Enterprise Supporting Center (WESC), to educate WSMEs on the benefits of accessing financial services for fundraising and business growth. For example, crowdfunding platforms can be used to fundraise and forecast market demand, which, in turn, would help WSMEs create products that fit the market. They should also promote the success stories of WSME that have obtained monetary gains and other benefits, such as identifying target markets and increasing product traction.

Connect WSMEs with Mentors in South Korea and Abroad to Drive Digital Transformation

Policy

The government should create more meaningful and targeted global networking events to connect WSMEs with local and global mentors. This goal can be achieved through government to government (G2G) partnerships via non-governmental organizations (NGOs). These efforts should be supplemented by providing grants for real-time digital interpretation to overcome language barriers with international networks. Additionally, the government should partner with local education platforms, such as FastCampus and Kmong, to provide targeted high-quality learning content and experience.

Practical

Business associations and networks such as Startup Women in Korea (SWIK) and We-Net should support the government in connecting WSMEs with role models in South Korea and abroad. More importantly, all key ecosystem stakeholders should jointly work towards promoting success stories of digitally-enabled WSMEs to fulfill the need for female representation in the business ecosystem.

Leverage Local Digital Services and Create a Community of Practice to Reduce Digital Anxiety Among WSMEs

Policy

The government should closely work with digital service providers to redesign the digital transformation voucher system so it aligns more with the needs and digital maturity levels of WSMEs. The corresponding policy should also cover the implementation process of digital tools and services by extending the support duration (beyond the 6-month standard), helping WSMEs to retain skillful young employees.

Practical

Business associations and networks should be encouraged to build a community of practice for WSMEs that focuses on digitalization and encourages WSMEs to learn from each other and solve issues surrounding digital technology implementation. Business associations and

networks should also create digital bootcamps and competitions (e.g., business competitions, hackathons) to train WSMEs and their teams in software implementation, thus supporting digital transformation. Additionally, WSMEs should be encouraged to leverage women-in-STEM communities, such as Women in Tech or Girls in Tech, to assist them in adopting digital technologies.

Build Business Resilience Through Digital Transformation

Policy

The government should continue implementing, monitoring, and evaluating practical digitalization assistance for WSMEs to manage the impact of COVID-19 through institutions such as the Small and Medium Business Distribution Centers (SBDC). For example, SBDC created a marketplace for SMEs to sell their products online.

Practical

Business associations, communities, and networks should promote relevant government programs that address the particular problems faced by WSMEs. They should provide digital assistance that can help WSMEs to efficiently identify the appropriate solutions to their problems, especially in times of crisis, to make their business more resilient.

3.4 Conclusion

Based on the results of this case study, we conclude that digitalization does offer new opportunities for South Korean WSMEs to overcome gender-related challenges at varying degrees, depending on the maturity of their business. South Korea's exemplary economic development can be attributed to the country's focus on technology development and digitalization, positioning the country as one of the leading tech leaders in Asia. Similar to other countries, the COVID-19 crisis was also a critical driver behind WSMEs' accelerated digitalization in South Korea. Government support and digitalization were also key to the survival of WSMEs.

Pillar 1: Access to Financing

In this case study, we found that participating WSMEs were open to and adopted various financing sources. The WSMEs preferred extensive government support as there is an abundance of programs for the WSMEs to choose from. Crowdfunding rose in popularity due to the flexibility of its schemes (i.e., reward-, donation-, equity-, and debt-based) and its non-financial advantages that the businesses could obtain (e.g., marketing, campaign, promotional support, product research). The findings suggested that digitalization has improved access to financing for WSMEs and democratized its access. There is a need for more collaboration between the government and other ecosystem stakeholders to promote available financing solutions to WSMEs, while ensuring their safety through adequate policy and regulations.

Pillar 2: Access to Mentoring, Networking, and Skills

All WSME participants acknowledged the importance of mentoring, networking, and skill-building. The COVID-19 crisis has forced the shift from offline to online activities, accelerating digitalization in the learning and networking of WSMEs through online courses and virtual events. To enhance the quality of content available through online access, there are opportunities for the government to partner with local education platforms focused on business.

Moreover, digitalization addressed the

discomfort of South Korean women who had to participate in informal business networking events that mostly revolved around male-dominated activities, providing a more convenient way of finding business connections. The findings highlighted the need to leverage business associations and networks such as SWIK and SIWA to improve networking and mentoring quality inside women's networks.

Pillar 3: Business Processes and Management

The availability of local digital applications and platforms helped to reduce barriers to digitalization for WSMEs in South Korea. In South Korea, digitalization has covered every component of the business processes and management, as indicated by the presence of a local application for every part of a company's business processes. As digitalization skills do not come naturally to everybody, localized content offered in the native language can ease the digital adoption process. To improve further adoption, the government should partner with local digital service providers to redesign the digital transformation system to better align with the needs and digital maturity level of WSMEs. In addition, relevant policies should also cover the implementation process of digital tools and services.

Pillar 4: Crisis Management (COVID-19)

The COVID-19 crisis has accelerated digitalization, which transformed WSMEs in South Korea. This has been enabled by the extensive support provided by the government. The government not only provided employee tax waivers and emergency aids, but also offered stimulus packages. Despite the negative impacts of the pandemic on businesses, the surviving WSME participants learned to become more agile and resilient by adopting digital technologies in financing, accessing mentoring, networking, and skill-building, and business processes and management. However, it was found that more conventional WSMEs were slower in adopting digital tools due to their limited access to information and talent, highlighting a need for digitalization assistance.

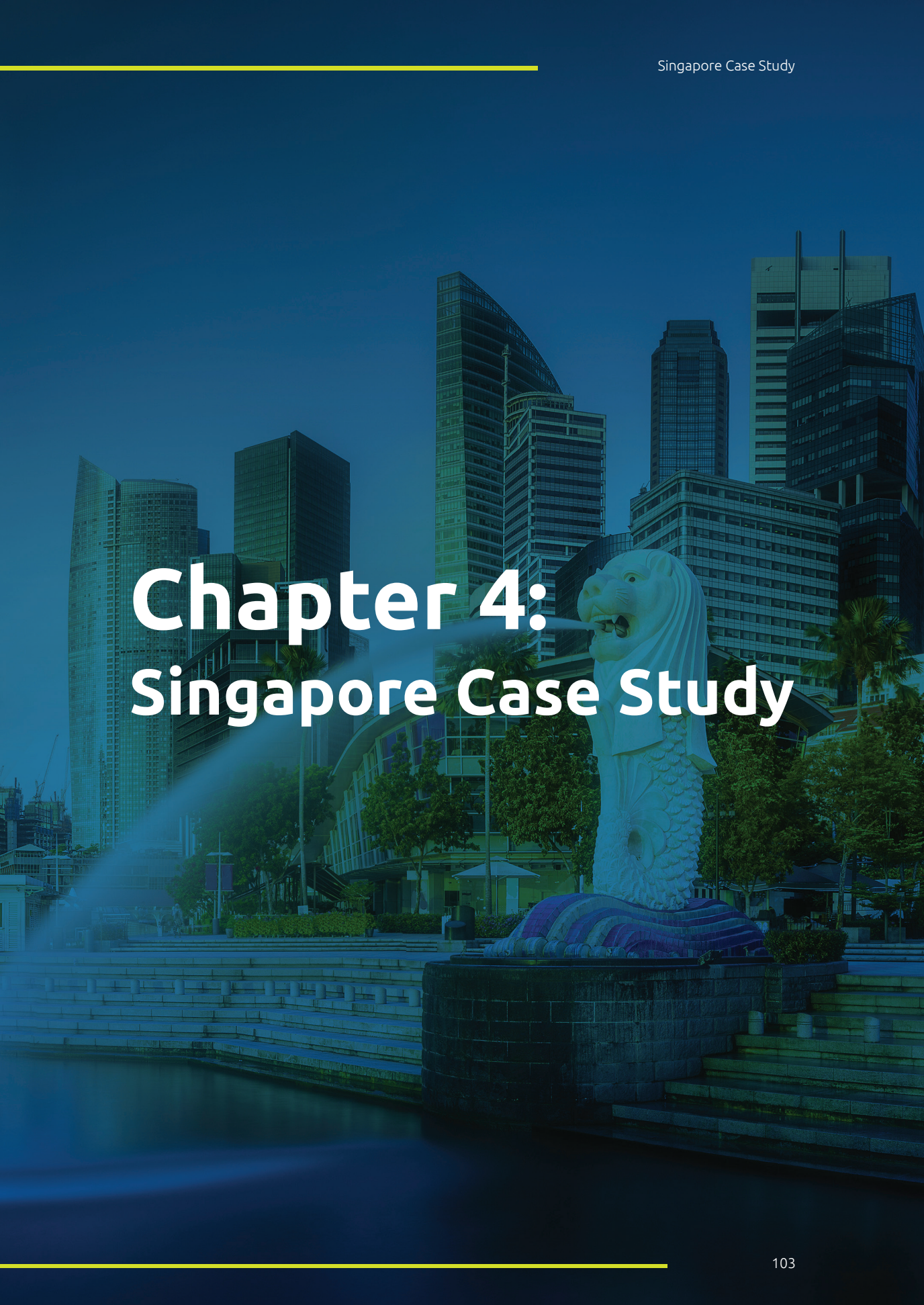
Finally, the Digital Maturity Index is a tool that can help stakeholders in diagnosing WSMEs and providing them with appropriate support and a digitalization roadmap. The findings indicated that SE owners interviewed in this study were more eager to leverage digitalization for their growth as compared to their ME counterparts. To help WSMEs thrive, there is an opportunity for the government to partner with other institutions in the business ecosystem, such as with KOVWA to assist their digitalization process.

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Chapter 4: Singapore Case Study

A photograph of the Singapore skyline at dusk, featuring several modern skyscrapers. In the foreground, the Merlion statue is visible, spouting water into a pool. The scene is overlaid with a semi-transparent blue filter.

4.0 Summary

Purpose of the Study

This case study investigates whether digitalization offers opportunities to women-owned small and medium-sized enterprises (WSMEs) to overcome gender-related challenges in Singapore and provides policy and practical recommendations to stakeholders, such as policymakers, private sector, and business associations, on mitigating obstacles to digitalization faced by WSMEs. This study was carried out between April and July 2021. It was structured around four pillars: 1) access to financing; 2) access to mentoring, networking, and skills; 3) business processes and management; 4) crisis management (COVID-19).

Pillar 1: Access to Financing

Personal funds and operating profits remained the preferred way to finance. Out of 20 interviewed WSMEs, 18 used personal funds to start their businesses and strove to sustain or grow organically with operating profits. Government grants were the second most used form of financing, with 15 out of 20 WSMEs reporting that they have received them at least once. Traditional bank loans were the third most utilized financing source by WSMEs. Despite Singapore's thriving FinTech sector offering a variety of alternative financing options, the majority of the WSME participants indicated their strong preference toward more traditional financing, such as personal savings, bank loans or credit lines. Fear of losing control of the business and lack of in-depth understanding of financing solutions deter some WSMEs from seeking equity funding from investors. In addition, none of the research participants used gender-lens investing instruments. The expert interview findings concurred that WSMEs were not fully leveraging available financial resources to their advantage.

Pillar 2: Access to Mentoring, Networking, and Skills

Industry peers, family and friends, informal advisors were a major source of advice and knowledge. Out of 20 WSMEs, 13 sought business advice from peers in their industry, nine relied on family and friends, whereas only three have had a formal mentor or advisory board. Amid the COVID-19 pandemic, when the in-person learning environment was not possible, online learning served as an accessible and affordable resource for women entrepreneurs. All interviewed participants were eager to learn and the majority (17/20) gained access to new knowledge using various digital resources. Although only two out of 20 WSMEs participated in a mentorship program, almost half of all interviewed WSMEs wished to have mentors.

Pillar 3: Business Processes and Management

With varying degrees of digital intensity, most WSME participants adopted some form of digitalization within their business processes, while some only implemented technology in a few areas of their business. Digital financial and accounting tools were the most prevalent ones adopted by all research participants. Using the digital intensity model, the research team found that only three out of 20 were in the high-intensity category, almost half of the participants belonged to the medium-intensity category, while the remaining eight were in the low-intensity category. The data indicated that the WSMEs would tend to prioritize digital solutions for customer-centric processes over others. The interviewed experts pointed out that the SMEs need significant support in the form of system integrators in order for digital tools to truly support their business processes. While the government grants played a pivotal role in helping the WSMEs to digitalize their business processes, the advisory panel explained that the Singaporean government's vast selection of funding schemes can be overwhelming for small businesses with limited human resources. WSMEs might struggle on several fronts, including identifying grants relevant to their specific needs, conforming to grant criteria limitations, and if successful, fulfilling grant stipulations to access the funding.

Pillar 4: Crisis Management (COVID-19)

COVID-19 impacted digital transformation in two different ways. For some businesses, it accelerated the digital adoption, driven by the need to survive, but for others, it delayed the implementation of digitalization strategies. The Singaporean government's support to help SMEs to cope with the impact of the COVID-19 pandemic was timely and effective. The majority of the WSMEs in this study were able to take advantage of COVID-19 support measures from the government, with 13/15 WSEs and 4/5 WMEs receiving them. These measures included cash payouts, rental waivers, loans, wages, training support for local employees, and grants.

Our findings from the WSME interviews were then reviewed by different stakeholders to co-create policy and practical recommendations to improve access to financing, increase the use of government grants, better structure grant schemes, improve access to mentorship and network, support successful execution of digitalization, tackle unconscious gender bias, and help SMEs to cope with the COVID-19 pandemic. These recommendations include the following:

- Leveraging gender-disaggregated data and gender-lens education programs to improve diversity, equity, and inclusion in financing;
- Promoting newly available fintech solutions, including the availability of gender-lens funding opportunities, which will help address the lack of awareness among WSMEs;
- Optimizing government support through the already established SME centers. Increase branding of SME centers as a one-stop resource for successful WSMEs;
- Providing financial planning, fundraising and business scalability workshops with practical tools for SMEs so that they are equipped with the necessary knowledge and skills to fully leverage available financing resources in Singapore.

4.1 Country Background

Digitalization and Economic Growth

As a regional tech leader in Asia, Singapore is a high-income economy with a GDP per capita of USD 59,797 (as of 2020) and a population of 5.68 million.¹ In the latest Asian Digital Transformation Index (2018),² Singapore is ranked the first, ahead of South Korea, Japan, and Hong Kong.¹ Singapore's household access to the Internet has steadily increased from 2013 to 2019, from 84% of the population to 98%,³ while the mobile penetration rate in Singapore was at 148.2% in 2020,⁴ meaning that people have more than one smartphone device.

The Singaporean government is dedicated to enabling and accelerating digitalization of its economy through a supportive regulatory and policy environment, as well as through grants. For example, the Monetary Authority of Singapore (MAS) Financial Technology Regulatory Sandbox and its Sandbox Express have relaxed specific legally binding regulatory requirements so that companies have the opportunity to test new financial products and services in the market, fostering more digital innovation through trials. Furthermore, Singapore's Future Economy Council (FEC) aims to drive economic growth by incorporating technology in various areas, including construction, education, commerce, medicine, and agriculture.⁵ In 2020, the Singaporean government announced a budget of SGD 3.5 billion (USD 2.58 billion) to be spent on information and communications technology, to support digitalization among local businesses.⁶

While the country has made significant progress in its journey toward digitalization, its economy was heavily impacted by COVID-19 in 2020. The restrictions on tourists, global supply chains, and fall in demand for locally produced goods and services resulted in the worst recession the country has faced since its independence.⁷ The most severely affected sectors were air transport, accommodation, and other tourism-related sectors. Consumer-facing sectors,

such as retail and food services, were also significantly adversely affected by progressively stricter safe distancing measures. However, there were some bright spots with the rise in demand for online sales and services.⁸ Mr. Tan Kiat How, chief executive of the Infocomm Media Development Authority (IMDA) said, "COVID-19 is a wake-up call that going digital is not an option—it is an imperative."⁹

Digitalization and Women-Owned Small and Medium-Sized Enterprises (WSMEs)

SMEs are an essential component of Singapore's economy (see Appendix H), comprising 99% of 281,000 enterprises,¹⁰ providing two-thirds of Singapore's employment, and capturing 40% of nominal GDP in 2020. In terms of women ownership, only 24.7% of businesses were owned by female business owners, indicating a wide gender equity gap in company ownership.

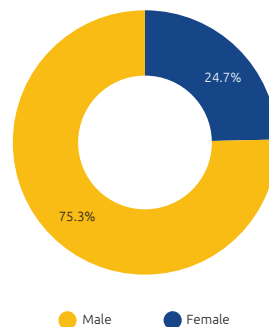


Figure 4.1 Gender representation in business ownership

COVID-19 negatively impacted the liquidity and cash flow of many SMEs. In an SME survey conducted by DBS Bank in February 2020, 70% of the respondents stated cash flow as their top concern.¹¹ Receivables and delays in payment became rife, with partial payments, defined as payments with only 50–90% of total bills paid within the agreed payment terms, hitting an all-time high in 2020 at 14.54%.¹²

The Singaporean government has supported SMEs through various agencies and initiatives (see Appendix I). These include Enterprise Singapore and the SMEs Go Digital program under the Infocomm Media Development Authority (IMDA), within the Ministry of Trade and Industry (MTI), which aims to strengthen SMEs' digital capabilities to increase their productivity and opportunities for growth. A last year's study on digital transformation among SMEs in Singapore reported that more than 80% of SMEs had digital transformation plans.¹³

Gender Lens in Government and Policies

The government of Singapore has started to recognize the importance of applying a gender lens to policies. In September 2020, Conversations on Singapore Women's Development was launched, an initiative spearheaded by the Ministry of Social and Family Development, and supported by the Home Affairs and Culture, Community and Youth ministries. This initiative aims to identify and address issues concerning women in Singapore in order to move toward greater gender equality.¹⁴ By engaging citizens in collecting feedback and recommendations on how to advance women in Singapore, it is expected that the government will be able to develop suitable policies and initiatives, including investing in WSMEs.

Gender Lens in Financial Institutions and Investment Funds

Traditional financial institutions in Singapore have increasingly recognized the importance of gender lens investing, with significant efforts invested to mobilize private wealth towards gender equality and female empowerment. For example, in 2018, the Union Bank of Switzerland (UBS), the top wealth manager in Asia and Singapore,¹⁵ announced the launch of their Global Gender Equality UCITS ETF (Undertakings for the Collective Investment of Transferable Securities Exchange Traded Funds), the first of its kind to put gender equality (and sustainability) at its core.¹⁶ Singapore's DBS Bank was also included in the Bloomberg Gender-Equality Index (GEI) for

the fourth year running in January 2021 and was the only ASEAN company in the GEI's top global quartile.¹⁷

As of 2019, the total capital raised by gender lens investment vehicles targeting East and Southeast Asia grew to USD 1.3 billion.¹⁸ Innovative gender lens financing instruments to address the funding gap have emerged in recent years, one example being the Singapore-based capital firm Impact Investment Exchange (IIX)'s Women's Livelihood Bond Series (WLB Series). The WLB Series is a series of debt securities with USD 150 million in capital to create sustainable livelihoods for underserved women in Southeast Asia through innovative finance. The WLB Series closed on the Singapore Exchange and supporters include The Rockefeller Foundation, United Nations Capital Development Fund (UNCDF), and Standard Chartered Bank.¹⁹ The second example is the launch of the Beacon Fund, a USD 50M private debt financing fund in 2020 that invests in female entrepreneurs in Southeast Asia.²⁰

The Asian Venture Philanthropy Network (AVPN), a social investor network, launched a gender platform²¹ in 2020 to mobilize capital to improve outcomes for women and girls, as well as the Asia Gender Network,²² which is the first pan-Asia network that moves capital to drive gender equality across the region²³ with members consisting predominantly of family business heirs.

4.2 WSME Interview Findings

Of the 20 women entrepreneurs interviewed, 18 recognized the importance of digitalization, while 15 were aware of the specific benefits of digitalization for their companies.

This section presents insights from the interviews with 15 women-owned small-sized enterprises (SE) and five women-owned medium-sized enterprises (ME), highlighting the challenges and opportunities that affected WSMEs during their digitalization journey across the four pillars: (1) access to financing; (2) access to mentorship, networking, and skills; (3) business processes and management; and (4) crisis management (COVID-19).



Figure 4.2 Digitalization awareness among WSME participants

Pillar 1: Access to Financing

The WSME participants were faced with many challenges in their daily operations, but not having a strong cash flow caused immediate risks to the viability and stability of the business.

Sources of Funding and Challenges Associated with Each Source

Personal Funds and Operating Profits

Personal funds and operating profits remained the preferred way to finance. Out of 20 interviewed WSMEs, 18 used personal funds to start their businesses and strove to sustain or grow organically with operating profits (see Figure 4.3).

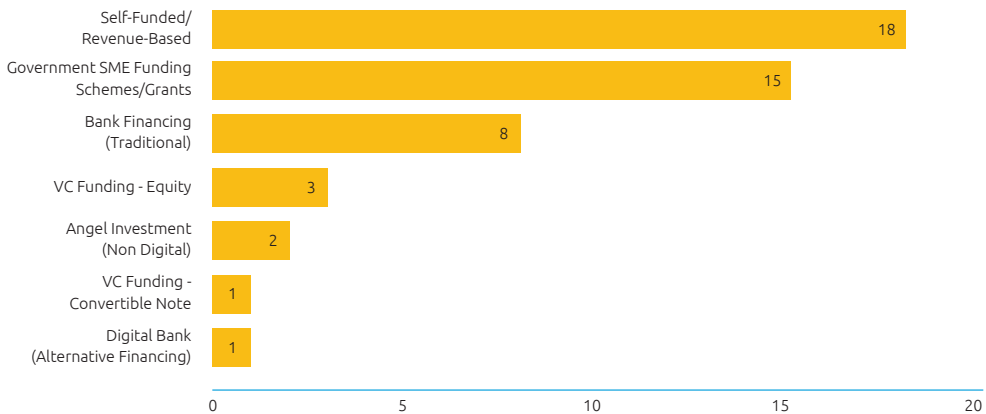


Figure 4.3 Breakdown of sources of funding adopted by WSME participants

Fear of losing control of the business and the lack of in-depth understanding of financing solutions deterred some WSMEs from seeking equity funding from investors. In this study, four women-owned small business owners and one medium-sized enterprise owner mentioned that they were reluctant to get funding from investors, because having equity investors can be a liability for the business. They felt that having a third party join their business may pose a risk that would jeopardize their independence and freedom. They expressed a strong desire to retain their autonomy in their businesses. Inherently, the participants believed that they knew what was best for their business and were not willing to compromise their stake in decision making. In addition, seven WSEs and one WME in this study indicated they were not very aggressive in seeking external financing because they do not have a well-defined long-term business growth strategy that will steer them in the direction of seeking additional funding.

Government SME Funding Schemes

In Singapore, governmental support of SME growth is very strong, with a coordinated network of policies and grants in place and significant resources dedicated specifically to funding the digital transformation journey of local businesses (see Appendix I). Grants were the second most used form of financing after self-financing, with 15 out of 20 WSMEs reporting that they have leveraged the support of government grants at least once (see Figure 4.4). Most of the grants utilized by the participants were from Enterprise Singapore under the Ministry of Trade and Industry. It is important to note that, there are currently no gender-specific grants for WSMEs or grants for small vs. medium-sized enterprises.

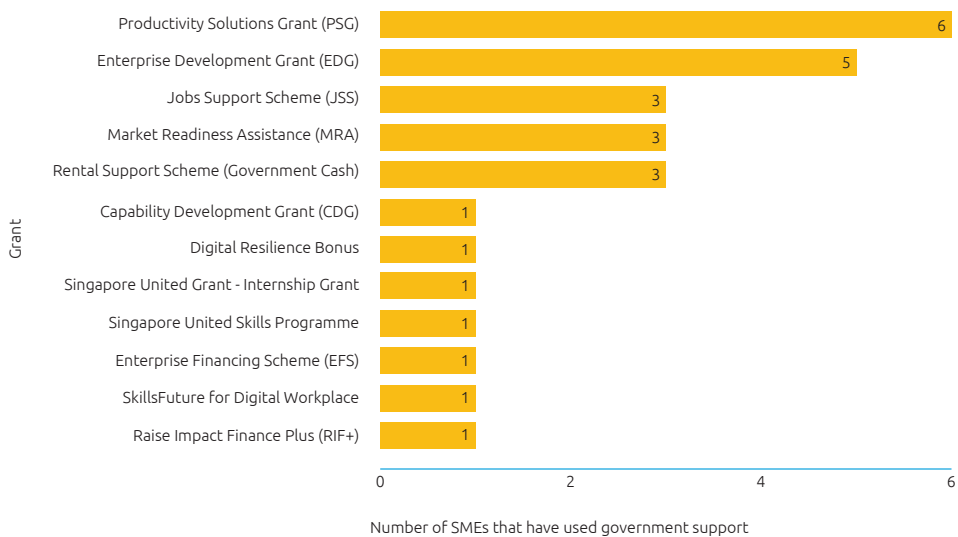


Figure 4.4 Government support used by WSME participants

Figure 4.5 summarizes the steps of a structured IMDA grant acquisition process. In general, SMEs can enter the system in two ways: taking an online self-assessment or making an appointment with an SME center. Afterward, they can consult with the corresponding staff and have their needs assessed to be matched with the available help. Consultancy is an essential step as the Singaporean government offers a wide array of programs and grants that can be very specific. After deciding on which program to apply for, SMEs need to go through a tedious process and meet specific requirements, which can consume a lot of their resources. Lastly, government programs implement a fund reimbursement model that requires SMEs to provide advanced cash payments.

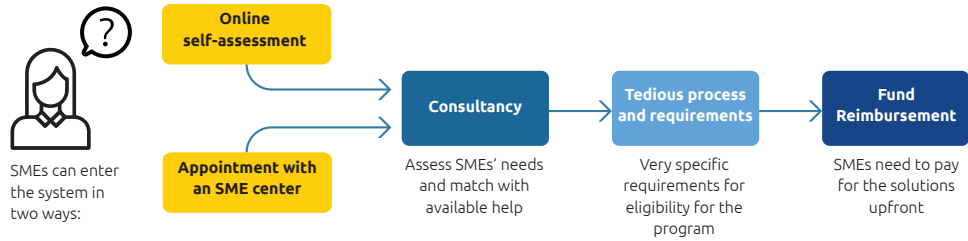


Figure 4.5 IMDA's grant acquisition process



There are different grant schemes. Some are for specific pre-approved items, some allow you to submit proposals, and others are for expanding into new markets.

(Ramya Ragupathi, Oh My Goodness!)

We investigated why five of the 20 WSMEs interviewed did not utilize government grants. The grant-related difficulties faced by the WSMEs were the lack of awareness of available grants, the daunting grant process, the difficulty of paying upfront before reimbursement, grants being unsuitable for their needs, and the extensive documentation requirements.

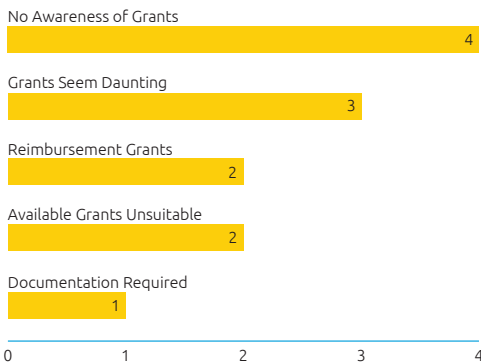


Figure 4.6 Grant-related issues faced by WSME participants

Traditional Bank Loans

Traditional bank loans were the third most utilized financing source among the WSME participants. The authors discovered that eight of the 20 WSMEs interviewed had used bank loans.

The WSME participants were concerned about personal loan guarantees when taking on unsecured bank loans. In Singapore, only 22% of all bank loans are extended to SMEs.²⁴ All unsecured bank loans without collateral require a personal guarantee from the business owners. Although a personal guarantee enables lenders to quickly issue loans to a wider number of businesses, it was considered unsafe by the WSME participants. Three interviewees shared their worries about losing their homes in the event of insolvency issues. A second-generation business owner pointed out that the banks need to become more progressive and look for other means to ensure loan repayment and assess credit worthiness.



I'm the personal guarantor for all our loans and it is genuinely scary, because if anything happens, my HDB (Housing Development Board) flat will be taken away.

(SG_SE05)



Coming from a second generation, the one thing that I hope can be realized by this generation is that [banks] can seriously review personal guarantees. For a personal guarantee, if I'm not wrong, a lot of foreign companies don't practice that. They go by corporate guarantee. For Singapore, a lot of the SMEs, even if you are a certain size, [banks] still go by a personal guarantee. I find that very limiting and not very progressive if I would compare that with other banking structures overseas.

(SG_ME05)

Other Financing Options

Adoption remained low for alternative financing options. Only two of the 20 WSMEs interviewed had explored alternative financing solutions (see Appendix J), and only one out of those two used such solutions. One of the solutions was a digital bank platform that offers micro- to medium-sized loans to SMEs. The two WSME participants found the user interface unfriendly and experienced sudden changes in financing terms. The second alternative financing solution explored by a WSME was equity crowdfunding, but this financing solution was a better fit for tech startups as the method of valuation is different for more conventional medium-sized businesses.

There was also very low awareness of gender lens investing (GLI) instruments among WSMEs. Among the 20 WSMEs interviewed, none of them have explored the GLI instruments in Singapore or in the region despite the fact that gender lens investing (GLI) has been gaining traction and attention from various stakeholders in the ecosystem of SMEs. Millions of dollars have been poured into the hands of fund managers in private funds, financial institutions, and family offices. The lack of awareness about these gender-oriented financing instruments can be considered a missed opportunity for WSMEs to tap into both equity and debt financing solutions. These GLI instruments often come with

technical assistance (TA) and customized mentoring programs with a strong understanding of the specific challenges faced by female entrepreneurs.

Pillar 2: Access to Mentoring, Networking, and Skills

Mentoring, networking, and skills are crucial factors that can improve the quality of businesses run by female business owners. Finding fellow women embarking on the same journey could encourage WSMEs to pursue this unconventional path and become successful. Building a strong business network, accessing mentoring, and learning new skills become more critical to the success of their business.²⁵

Informal, Close-Knit Personal Network

Industry peers, family, friends, and informal advisors were the main sources of advice and knowledge. Most WSMEs in the study sought advice and knowledge from peers in their industry (13 out of 20 WSMEs) and family/friends (nine out of 20 WSMEs). Figure 4.7 illustrates the breakdown of sources from which WSMEs seek business advice. Only three out of 20 WSMEs have had a formal mentor or advisory board.

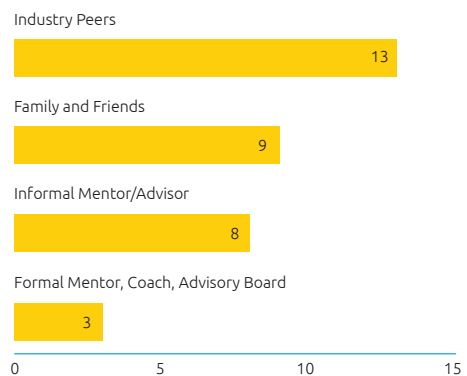


Figure 4.7 Sources of business advice for WSME participants

Formal Business Associations and Networking Groups

The majority of WSME participants belonged to formal business associations and professional networking groups. Out of 20 WSME participants, 17 were in formal business associations or professional networking groups from which they gathered information and sought emotional support, and about half were specifically for women in business. Half of the WSMEs were part of online communities on LinkedIn, Facebook, and WhatsApp for informal social and professional networks.

The WSME participants wanted a genuine and organic connection that could sustain a long-term mentor-mentee relationship. Although half of the participants had formal advisors, coaches or informal mentors, nine WSME participants were still open to mentorship. The authors learned that finding the most suitable one is dependent not just on a potential mentor's expertise or industry experience. Three WSMEs said that they wanted a mentor who was inspiring, and it was crucial for them to establish a genuine mentor-mentee connection. For example, one of the participants said she preferred a mentor with a similar background or a woman owner with a family.



I feel that many people who call themselves mentors don't spend [sufficient] time with their mentees.

(SG_SE05)

The authors learned that only two out of 20 WSMEs had participated in a mentorship program. These two founders did not have positive experiences and left the programs. One felt the program she was in was overly critical/harsh in their feedback and was not supportive; the other shared that the program was only three months long, and although the mentors were knowledgeable, their available time was limited and the feedback was often no longer relevant by the time she received it.

How Did WSME Participants Acquire Necessary Skills and Knowledge?

All of the interviewed participants were eager to learn, and the majority (17/20) gained access to new knowledge using various digital resources, as illustrated in Figure 4.8. Fourteen WSEs attended virtual events, free e-learning courses and online resources, and paid e-learning courses. Three WME participants used only free online resources or paid online courses.



Figure 4.8 Digital learning resources used by WSME participants

Online learning resources were affordable and accessible, but less engaging. Cost was not a major barrier, with 11/20 WSMEs having paid for themselves or for their staff to attend online courses. Several WSMEs mentioned tapping into SkillsFuture for staff training, a government initiative that provides courses (often online) across many disciplines through partnerships with private providers and public tertiary institutions, with subsidies of up to 90%. The accessibility of free online resources is made easier with online search engines. Despite the popularity of online learning, 6/20 WSME participants still preferred face-to-face learning. Two of the WSME participants indicated they did not use any digital tools for learning. Instead, they reached out and learned directly from experts within their networks. Four out of 20 WSMEs felt that virtual settings did not enable the trainer to pay attention and cater to individual attendees.



But now everything is online, [and] unless you're a fantastic speaker or you're very engaging. I think even if you have the best of brains or best modules, it falls flat. So [the] attention span is a bit short.

(SG_ME05)

The top constraint for access to mentoring, networking, and skills was the limited time. Half of the WSME participants stated that time was a big limitation when it came to gaining new knowledge, including the time required for finding the right resources. The day-to-day business operations also took much of their time, as most WSME participants reported having very lean team structures. Two MEs shared similar views, "I can't afford the time to learn. So what I do is, I learn on the job," said SG_ME05. The other ME owner noted that between work and prioritizing her family commitments, she had less time not just for learning, but also for finding a mentor.

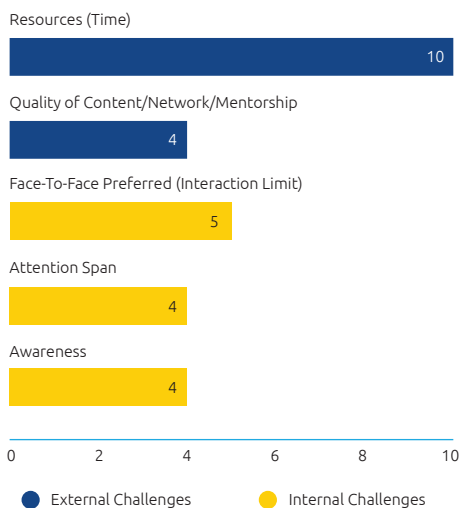


Figure 4.9 Top five challenges in WSME participants' access to mentoring, networking, and skills

Pillar 3: Business Processes and Management

Digital Tools Adopted by WSMEs and Challenges Faced During the Process

With varying degrees of digital maturity, most WSME participants adopted some form of digitalization within their business processes, while some only implemented technology in a few areas of their business. A wide range of digital tools were used to improve their business processes, yet not all participants necessarily utilized digital tools from all categories. The 11 categories spanned across:

- Finance and accounting
- Customer relationship management
- E-commerce
- Business management
- Cashless payment
- POS/inventory
- Collaboration/communication
- Cloud storage/workspace
- Cybersecurity
- Digital marketing
- Social media

The use of digital tools to assist in finance and accounting seemed to be the most prevalent, with all participants having used them before. Secondly, all 20 WSMEs reported having websites, while half of them were active on social media and e-commerce marketplaces. Digital tools for team collaboration (18 WSMEs), cloud storage (15 WSMEs), cashless payment (15 WSMEs), customer relationship management (13 WSMEs), and human resources (12 WSMEs) were widely used among the research participants. However, digital tools for cybersecurity seemed less popular, with only three WSMEs having used them. Although some of the more tech-related WSMEs had created in-house-developed tools designed for their own specific needs, the majority chose to utilize existing off-the-shelf digital products in the market. Among these, the tools most commonly used by WSMEs were those for collaboration/communication purposes, finance and accounting, and social media platforms.

Meanwhile, six interviewees signaled that integrating various digital platforms posed a serious hurdle for them during the digitization process.



I think the barrier is using the right tools at the right time in the right way, and then getting them to work together, and getting them to amplify your business strategy.

(Louisa Lee, DP Dental)

The most common challenges mentioned by the WSME participants were digital literacy, change management, talent resources, and financial resources. In this study, the interviewees were asked to categorize business process-related challenges as medium and large challenges based on their judgment. In total, digital literacy & skills and team adoption/change management were the two top challenges experienced by both SE and ME owners.

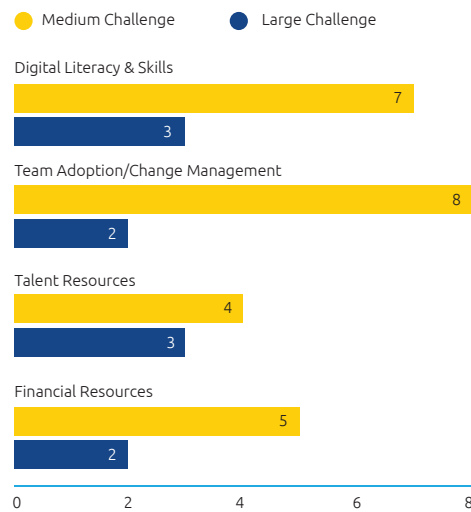


Figure 4.10 Top four business process-related challenges experienced by WSMEs

A participant from the F&B industry recalled her experience in dealing with resistance from employees who lacked digital skills:

“[Initially] my journey started in 2003 with the digitization and, at that point, my average age employee was 50 something and they are the group of people that’s not highly educated and they don’t even know what a CPU or a mouse is. Initially there was a lot of fear, there was a lot of pushback.” She explained that adopting new technology required not only operational changes but also managing people and their expectations.

Another WSME acknowledged that her team’s digital skills had reached a plateau in digitalization, requiring them to acquire new skills and knowledge on automation:



I definitely want to explore automation. I feel like we don’t know enough of it...I have come to realize that the skills that brought me here for the past 16 years, they’re not going to be adequate to bring me to the next level of business that I want to bring it to.

(SG_SE10)

None of the 20 interviewees saw gender as a large challenge in the digitalization of business processes, indicating that Singapore has a relatively equal perspective of genders.

Most Important Decision Factors for Digitalization

The two most mentioned factors that affected the participants’ decisions on which tools were most suitable for their businesses were operational efficiency and change in customer behavior and client needs.

Operational Efficiency

Five participants suggested that digitalization can help with improving efficiency including being less reliant on people and having more streamlined processes. Being efficient and lean was considered to be particularly important to keep the business afloat during crises such as the COVID-19 pandemic. For example, a catering business owner

integrated its various reservation channels to efficiently process reservations and avoid human errors. A clothing business used machine learning to track customer preferences, which allowed her to efficiently and accurately predict inventory requirements and fashion trends.



We are building a pure tech company. Everything we're doing requires technology. Recently, I sold off all parts of my company that needed human resources because we needed to make the business much leaner during the COVID-19 crisis. We have a fully automated business. So technology allows us to be super lean and hopefully soon be highly profitable.

(Rosaline Chow Koo, CXA)

Change in Customer Behavior and Client Needs

The adoption of customer-facing digital tools, such as online booking systems (four WSMEs), e-commerce marketplaces (10 WSMEs), and cashless payment (15 WSMEs), was primarily accelerated by a change in customer behavior due to the COVID-19 pandemic. In addition, six WSMEs adapted their service offerings into digital forms. For example, one WSME participant with a company in the insurance industry reported that her organization decided to fully digitalize the product after finding that the mobile application approach had grown 200% before and after the start of the pandemic, while their conventional brokerage business stalled. Another interesting case came from a participant in the event organizing service industry who had digitally transformed her company's services and operation since the COVID-19 lockdown measures put a halt to communal gatherings. After a successful transition, the company

adopted the virtual approach, invested significant effort in building the company website, and managed to have a profitable business during the COVID-19 crisis.



It was one of our clients who asked us to do a virtual event (during lockdown). Zoom has been an absolute grace for us, because there's no way we could have done any physical events, and thanks to digital technology, we have been running events every two weeks.

(SG_SE04)

The Role of Government Support in Digital Transformation

The Singaporean government has gone to great lengths to support digital transformation of businesses by providing grants and other initiatives. In August 2020, the Fortitude Budget put aside SGD 500 million (USD 368.7 million) to help SMEs and local businesses to manage the COVID-19 crisis through digital transformation. The 2021 budget also includes a SGD 24 billion (USD 17.7 billion) plan to help businesses to transform and adapt to the post-pandemic world. In particular, Singapore has launched SMEs Go Digital, a program from Infocomm Media Development Authority (IMDA) that provides a detailed industry digitalization plan (IDP) for 16 industries; it is a guide on how to digitalize and transform an existing business.

Among our 20 research participants, 12 applied for and received government grants for their digital transformation. Although the grant recipients expressed their appreciation of governmental support, four out of 20 WSMEs reported that the long grant application and approval process was challenging for them. Due to the pre-approved solutions requirement, one WSME owner had to develop solutions that were not the best fit for her needs. Two WSME owners were not qualified to apply for the grants, as the nature of their businesses required customization of digital solutions. Moreover, the requirement of

some government grants to invest upfront cash put pressure on cash-strapped WSMEs, while the application process itself could be long and tedious. Out of 20 WSMEs, four reported that it was challenging for them to pay upfront costs and set aside their operational money until the reimbursement came in.



With the current reimbursement system in the CDG (Capability Development Grant), we have to provide a lot of money in advance and wait for the government to reimburse us back.

(SG_SE03)

WSME Spotlight I: Louisa Lee



Picture of Louisa Lee, Founder of DP Dental

DP Dental is a dental service based in Singapore that takes a meaningful and integrated approach to oral healthcare. In the years since it was founded, Louisa Lee has valued the customer's experience, and this central focus has shaped the way her business has transformed—digitally and otherwise. The developments in DP Dental's business processes always remained focused on a goal to make dental healthcare accessible and convenient for its customers.

From the time Louisa started the business 16 years ago, she was aware that technology would become increasingly important in achieving her business goals. For her, "technology is not something to be feared, but something to be a friend of." She understood its importance in automating processes and making business operations easier. As a result, DP Dental became one of the first dental services to adopt advanced technology, such as lasers, CAD/CAM (Computer-aided-Design/Computer-aided-Manufacturing) to improve the design and creation of dental restorations. Despite the initial setback in cost and time, Louisa pursued digital transformation because she "knew [they] were on the right track."

The major digitalization transformation happened after the impact of COVID-19. In 2021, DP Dental ventured into using AI technology in their dental practice. This was achieved through adopting a technology, Invisalign, which allows dentists to help more patients align their teeth through the use of the Invisalign AI. Coupled with the use of Invisalign, DP Dental has integrated dental monitoring of its patients through a digital application. Patients are able to submit a scan of their teeth every week to their dentist through the application so that their teeth can be more frequently monitored. As a result, they only need to come in for dental emergencies. This solution came about in response to the difficulties DP Dental faced with COVID-19 restricting the number of patients that could come in for an in-person checkup. Through the use of this technology, they have gotten closer to achieving the vision of remote dentistry—an unprecedented feat in the industry.

Moving forward, DP Dental is now progressing into tele-dentistry. This entails sending patient X-rays to dentists using technology, such as dental monitoring technology, so that clearer pictures can be taken of patients' mouths for more accurate snapshots of their teeth. With this more refined diagnostic evidence, more accurate diagnoses can be made and dentists will be able to issue treatment plans and even give second opinions to patients—wherever they might be in the world. Tele-dentistry and other digital transformation efforts will open up new pathways for DP Dental to reach patients internationally.



Pillar 4: Crisis Management (COVID-19)

The interview findings highlighted that 13 WSMEs were negatively impacted by the pandemic, while the remaining seven improved their businesses. When the data were closely examined, we found that six out of seven respondents who did well were in the service sector. They managed to quickly transform their products/services to a digital format. For the bakery business that quadrupled its B2C sales in the first month of the pandemic and quintupled it in the second month, it was equipped with an online e-commerce setup, cashless payment, remote working capabilities, and delivery, which enabled the business owner to readily capture the changing consumer behavior around food shopping and gifting via online outlets.



I wish COVID hadn't happened, but just in terms of keeping it purely on a business story, we went through the hard times, we gave out the freebies, then we won some new clients that wouldn't have happened otherwise, and now we're doing this. It's actually been our most successful year ever.

(Michelle Lim, Chatsworth Medi@rt Academy)

Overall, the authors discovered that about half of the 20 WSMEs were surviving, seven were thriving, while the remaining two were struggling.

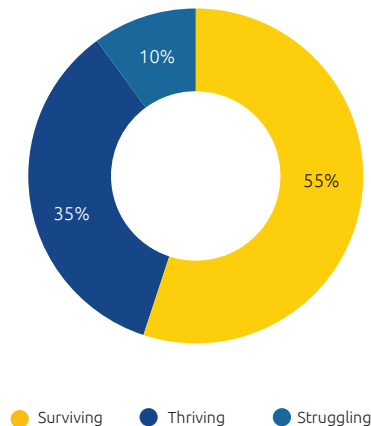


Figure 4.11 The state of participating WSMEs during the COVID-19 pandemic

According to the interview findings, digital technologies played a critical role in lessening the business impacts for 15/15 of WSEs and 4/5 WMEs. Most notably, digitalization allowed one company to downsize from 330 to 21 employees, create a more simplified workflow that made the organization more efficient, and use websites, instant messaging apps, e-payment, and social media platforms that helped the businesses to reach out to its customers. Moreover, 11 WSMEs reported that the digital solutions adopted prior to the pandemic helped them cope with the impacts. Meanwhile, 15 out of 20 WSME participants managed to increase digitalization due to COVID-19. Figure 4.12 summarizes examples of digital innovations among WSME participants triggered by the COVID-19 crisis.

Notable Digital Transformation Efforts Triggered by the COVID-19 Pandemic		
Food and Beverages	Health	Art, Entertainment, and Recreation
The pandemic made the founder realize that new business avenues would be needed to maintain revenue. After doing research, they found the right technology to preserve fresh food without affecting its quality. (SG_ME04)	With the increase in demand for healthcare, the founder received an overwhelming number of requests to be introduced or connected to other healthcare stakeholders. This sparked the idea to create a digital connection platform as a new B2B business angle to explore. (SG_SE07)	The founder explored virtual forms of events only to survive the COVID-19 crisis, yet now with audiences being more comfortable with not having to travel or dress for the occasion, this may become the new norm. (SG_SE04)

Figure 4.12 Notable digital transformation efforts triggered by the COVID-19 crisis among WSME participants

One WSME working in the F&B sector utilized a technology that could preserve fresh food without affecting its quality. Another WSME in the health sector developed a digital connection platform to explore B2B opportunities. Meanwhile, the arts, entertainment, and recreation sector needed to adapt to new audiences that are more comfortable with not having to travel/dress for the occasion. In general, the COVID-19 pandemic has pushed entrepreneurs to be more creative and innovative in order to survive and grow their businesses.

The Role of Government Grants and Initiatives in the COVID-19 Pandemic

The Singaporean government created the COVID-19 (Temporary Measures) Act 2020 (“the Act”), offering temporary relief to businesses and individuals who have been affected by the COVID-19 pandemic. The majority of the WSMEs in this study were able to take advantage of COVID-19 support measures from the government, with 13/15 WSEs and 4/5 WMEs receiving them. These measures included cash payouts, rental waivers, loans, wages, training support for local employees, and grants. Specifically, increased digitalization was supported by government digitalization grants, with 13 WSMEs receiving digitalization grants (e.g., PSG). Seven WSME participants also received government support through training grants, subsidized internships and traineeship programs. MEs generally had no challenges with accessing grants; however, WSEs still needed further financial support for marketing, rent, and reimbursement for previously adopted technologies. The various business support measures have been shared through numerous government portals to help businesses cope with the COVID-19 crisis through means of finance and cashflow, manpower costs, and employee training.

WSME Spotlight II: Crystalla Huang



Picture of Crystalla Huang, the owner of RedDot Brewhouse

RedDot Brewhouse is a restaurant-brewery nestled in the heart of Singapore's Dempsey Hills, a charming oasis in the midst of a bustling city, transporting visiting Singaporeans to a Bavarian beer garden. In this family-owned business, daughter Crystalla Huang is the face of the brewery, and Singapore's first and only certified female brewmaster.²⁶ Crystalla's mother manages the back of house operations, and together they kept the business afloat throughout the challenging COVID-19 times, which saw many F&B businesses go under.

Digitalization was a key component of their success. In April 2020, Singapore entered a nationwide "circuit breaker" to contain the spread of COVID-19, and all businesses deemed "non-essential" were required to close. Food establishments were only allowed to offer take-away and delivery services, with no dining-in permitted.

RedDot acted quickly, stating that "The management team actually just overnight turned, activated the e-shop, activated many things, and that saved us." RedDot was able to utilize government grants to go through a full digital transformation, beyond just their e-shop. The business quickly digitalized front to back, implementing a quick response (QR) code ordering system, revamping their e-shop and delivery, expanding their social media marketing to reach more customers, and digitalizing their payroll and accounting systems.

Pre-COVID-19, the majority of their processes were manual, and the brick-and-mortar shop was the focus. Now, their payroll and accounting are automated, saving time and effort for the staff, reducing the risk of manual error, and providing key insights about food procurement through data analysis within the accounting system. Ultimately, for Crystalla, understanding the human factor to digitalization was key to achieving success.



I'm quite a big fan of technology. So, I actually do look out for the most suitable apps and software for my business. When doing so, I ask myself, 'How do we make our work more efficient, or how do we use technology to help our team?'



Opportunities for Digital Transformation

In order to evaluate the opportunity for digital transformation, we modelled the adoption rate of digitalization through the lens of a digital intensity model adapted from the model by KAS et al. (2020; see Appendix K for more details).²⁷ The result was then mapped against the number of challenges that the participants had faced in Pillar 3, i.e., the pillar that was immediately affected by technology adoption (see Figure 4.13).

From the analysis of the model, eight out of 20 WSME participants were classified into the low-intensity category, nine out of 20 WSMEs were in the medium-intensity category, and three out of 20 were in the high-intensity category.

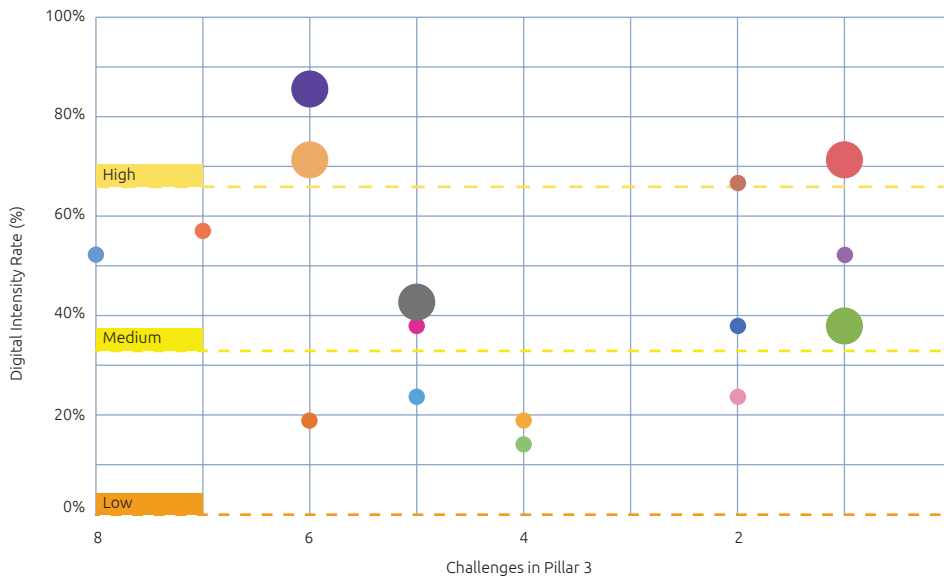


Figure 4.13 Digital intensity model (Y-axis: intensity rate (%), X-axis: total challenges from Pillar 3). Larger bubble size indicate MEs, while smaller size indicate SEs.

Challenges and Opportunities Associated with Digital Intensity Levels

When analyzed based on the challenges in Pillar 3, the most frequently mentioned challenges are summarized in Figure 4.14.

Top Three Challenges in Pillar 3		
Low Intensity	Medium Intensity	High Intensity
31 challenges in total	31 challenges in total	13 challenges in total
6 Lack of Digital Literacy & Skills	6 Lack of Financial Resources & Shortage of Digital Talent	3 Lack of Team Adoption/Change Management
3 Lack of Financial Resources	5 Lack of Team Adoption/Change Management	2 Shortage of Digital Talent Resources
3 Lack of Awareness in Digital Adoption	4 Lack of Digital Literacy & Skills	2 Other (Including Need for Roadmap)

Figure 4.14 Top three challenges in Pillar 3 faced by WSMEs in the the low, medium, and high digital intensity categories

Challenges and Opportunities for WSEs with Low Digital Intensity

For the low intensity group, the lack of digital literacy and skills, financial resources, and awareness were found to be the three most prominent challenges. These challenges—coupled with managing the operational load manually, without the help of digitalization—were significant tasks that took up most of the company’s resources. One of the WSMEs with the lowest digital adoption, SG_SE03, found that because she was the sole owner of the business, she was already occupied with a lot of operational tasks, which made it hard for her to implement new innovations in the business. Despite the constraint, this participant recognized the value of adopting digital solutions specific to the problems in the business.



I don’t know where to start [re: the digitalization process].

(SG_SE03)

This finding reaffirms that the role of SME Centers or the IMDA is central, as they help to provide awareness, early support, and build the momentum for WSMEs to digitalize and embark on their journey in digital adoption.

Challenges and Opportunities for WSEs with Medium Digital Intensity

For the medium-intensity group with some experience in doing digitalization already, the main challenges were the lack of talent and financial resources, team adoption/change management, and digital literacy and skills. The challenges stemmed from the need to integrate the company’s processes to simplify the digital operation, eliminate redundancy, and achieve operational efficiency. As affirmed by one WSME, they reported no issues when adopting new technology, but faced challenges in integrating more complex operations with digital solutions.



So for us, a big thing is inventory management; it remains an issue. I would really love an entire platform [re: to be digitalized], but it’s challenging.

(SG_SE04)

This finding suggests that the challenge of digitalization also evolves as the company adopts more technology and realizes further opportunities that could be achieved via digitalization. This also suggests that the more the WSME experiences digitalization, the more complex their digitalization needs become; hence the need for more funding, talent scouting, and provision of specialized technical knowledge. In addition to technical assistance, it is also important to provide support to WSMEs on how to navigate changes and effectively execute digital adoption projects, which will help WSMEs to better deal with the experience of digital transformation.

Challenges and Opportunities for WMEs with High Digital Intensity

For the high-intensity group, the most frequently mentioned problems were related to team adoption/change management, lack of talent, and other needs, including the need for a technological roadmap. One participant (SG_ME02) mentioned that because business trends evolve quickly, it becomes a challenge for her organization to always respond to the changes. The participant also showed that digital adoption comes gradually. In her case, the initial adoption occurred through omni-channel digital marketing, such as blogs, which then evolved into a more committed technology adoption in the form of an e-commerce website, and later turned into an even bigger technological commitment—namely, a customized ERP system for the business. This showed that the initial adoption could improve the baseline knowledge and appetite of the organization for an ever bigger technological and digitalization adoption.

Once the adoption is on a sufficiently advanced level, the need for a roadmap arises to organize the changes in a more systematic way. This observation can add to the IMDA's existing roadmap recommendation to possibly add customized roadmap consultation for more digitally advanced WSMEs that are willing to further improve in their digital adoption journey.



There is a lack of advisory centers or advisors to help us build the full digital transformation roadmap.

(SG_SE03)

4.3 The Future of Digital Transformation for WSMEs

Expert Interview Findings

Interviews with the following three experts were conducted to provide further insights into digital transformation in Singapore and to strengthen the WSME interview analysis findings.

Digital Transformation Expert

Managing Director of an information technology (IT) consultancy in Singapore working with SMEs. Francine Martindale, Content & Systems Pte Ltd.

SME Entrepreneurship Network Expert

President of a local business and professional women's association. Kim Underhill, Singapore Business Professional Women Association.

Women-Owned Business Marketplace Association Expert

Regional director of an international women-owned business marketplace. Minnie Venkatachalam, WeConnect International.

Pillar 1: Access to Financing

For access to financing, the WSME and expert interview findings were consistent, revealing that WSMEs are not yet fully leveraging resources to their advantage. The experts indicated that a multitude of new funding opportunities exist; however, the businesses need to identify funding options that are appropriate for the stage of growth and cash flow cycle. However, analyzing and comparing financing

options require time, which is a limited resource frequently cited amongst the major financing challenges for WSME participants.

One of the experts commended the business women's can-do attitude in acquiring the necessary financing for their businesses: "I find people here to be quite pragmatic. You know, if they feel like they are meeting some kind of roadblock, they will just find a way to resolve it." She noted, however, that WSMEs would benefit from the soft skills training required to actively seek investment opportunities beyond traditional banks and grants, because those soft skills are not taught at universities and are difficult to acquire on the job without appropriate guidance from qualified advisors.

According to another expert, a USD 95 billion opportunity to grow the economy would be missed if organizations, including investment and financial institutions, failed to adopt a gender lens, helping the women-owned businesses grow. She asserted that WSMEs did not need preferential treatment, but a recognition that they could be as good as any other businesses. Adopting gender-conscious approaches will ensure WSMEs are not overlooked for funding and contract opportunities due to unconscious gender bias.

Pillar 2: Mentoring, Networking, and Skills

Experts concurred that WSMEs have consistently shown high interest in mentoring, networking and upskilling but time was a key constraint. A difference in networking was also noted between MEs and SEs. According to the experts, SE owners typically do not have the time to look into formal networking programs as they are focused on running their business. MEs, on the contrary, typically realize the importance of networking, can delegate their teams for business operations, and make time to expand their networks.

The COVID-19 pandemic has increased the need for WSME leaders to consult with mentors and peers to inform their business resilience strategies. One expert also noted that they were receiving increased requests for corporate mentors. Other skills regularly requested for coaching and mentorship by WSMEs revolve around branding and visibility, both at the individual and business levels. Despite the growing demand for mentorship, the experts questioned the efficacy of existing mentorship programs, citing similar issues raised by the WSME participants in developing long-run mentor-mentee relationships. More needs to be done to incentivize mentors to stay invested in their mentees' growth. Although digital tools were helping women business owners network more, experts indicated that confidence remained a key barrier to networking for women business owners.

Pillar 3: Business Processes and Management

The experts agreed that while WSMEs in Singapore are aware that digitalization could benefit their business processes, they might need assistance to formulate a digitalization strategy that fits their needs. To prepare for a digital future, the ecosystem stakeholders should help create a long-term digital roadmap. Consistently with WSME findings, the experts did not observe any gender-specific challenges to digital adoption, but noticed that women business owners were more conscious of team consensus when adopting digital technologies. Both the experts and the three WSME participants that identified this trait attributed this behavior to women's tendency to be more empathetic and people-oriented. Findings from WSME participants and findings from global studies on the digital transformation journey of small businesses indicated that the lack of digital skills and stakeholder resistance are the top challenges to digitalization.²⁸ While these challenges are not particular to WSMEs, women business owners' consideration for employee buy-in alongside the quality of digital technologies can be a double-edged sword. On the one hand, technologies welcomed by employees have a higher chance of successful adoption; on the other hand, WSMEs may be slower to adopt technologies as they wait for their team members to desire change.

Pillar 4: Crisis Management (COVID-19)

Similarly to businesses globally, the experts noted that the COVID-19 crisis has forced many WSMEs to accelerate their digitalization. The experts also agreed that the government's support via salary offsets and development grants helped many SMEs weather the pandemic. It was indicated that agile change management is crucial for women business owners when implementing new technologies and addressing the challenges that emerged from the crisis. Previous studies have consistently shown that a clear digital strategy informed by business objectives is what drives the digital maturity of organizations.²⁹ Although 15 out of 20 WSME participants rushed to digitalize their businesses during the pandemic, decisions to adopt digital tools had to be made without a fully realized digital strategy. However, SMEs must adopt the right technology for their business needs to avoid creating an additional burden and to successfully transition in the long run.

The experts also identified that many businesses face challenges when adapting their business offerings and differentiating themselves online. For example, businesses that previously created value for customers through premium retail experiences had to adapt their differentiation factor as they moved onto e-commerce platforms shared by local and international competitors. Several WSME owners who demonstrated the ability to adapt and manage such changes to address COVID-19 related challenges have improved their business resilience (see WSME Spotlight 1: DP Dental).

Singapore WSME Ecosystem Map

In the WSME ecosystem in Singapore (see Figure 4.15), multiple groups of stakeholders are present, each with their own role. The first group is capital providers, composed of institutions that provide access to various types of financing that can be utilized by WSMEs. Small businesses have numerous financing options, with various vendors offering the financing services. In Singapore, this includes banks, angel networks, private equity/venture capital, and alternative/digital financing. The second group is government entities, whose responsibility includes provision of government grants and support. In particular, IMDA provides detailed industry digitalization plans and roadmaps that can help WSMEs navigate in their digitalization journey. The third group consists of networks, associations, and platforms, which can be utilized by WSMEs to find the right connections for their needs. Through this group of entities, WSME owners can discover mentors, experts, even future clients and partners—those who are important for the growth of their businesses. The fourth group consists of NGOs and development institutes, whose main role is advocacy and support. Through their programs, WSMEs can also find digitalization support and other sources of grants and financial support. Finally, the fifth and last group of stakeholders includes SME digitalization services, a category of stakeholders that support the technical side of digital adoption. As WSMEs often lack in knowledge and change management, SME digitalization services can help to reduce the difficulties and smoothen the digitalization process.



Figure 4.15 Singapore ecosystem map
*Please refer to the Acronyms and Abbreviations section.

Advisory Panel

The advisory panel (AP) comprising seven participants and representing cross-sectoral stakeholders (see Appendix L) discussed insights distilled from interviews with 20 WSMEs and three experts. The findings from these interviews were condensed and presented in the form of five problem statements around digital strategy, mentorship, and mindset, adoption of digital financing solutions, limitations of grants, and the gender lens reality. The AP discussed the context, as well as practical and policy recommendations for problem statements.



Figure 4.16 Advisory panel methodology with the panelists in Singapore

Policy and Practical Recommendations



Figure 4.17 Summary of policy and practical recommendations

After the research findings were presented, the advisory panel and the research team made the following observations, insights and recommendations (see Figure 4.17).

Improving Access to Financing

Despite Singapore's thriving FinTech sector offering a variety of alternative financing options, the majority of the WSME participants identified as self-funded—indicating their strong preference for more traditional financing, such

as personal savings, bank loans or credit lines. This mindset correlates to a fear that external financing could lead to negative situations, such as demanding requests from external funders or losing some control of their company's direction. The panel observed that low interest in external funding is also linked to the lack of awareness of the potential benefits of raising external funding, which could be remedied with more representation of women business owners who have successfully raised capital and had positive repercussions.

Although the participants in this study did not cite gender as a barrier to financing, the panelists agreed that there is an apparent gender gap when it comes to access to capital. Access to capital in Singapore continues to be male-dominated, which may be a cause for an unconscious hesitation among WSME owners to approach them, and vice versa, for their support and funding of WSMEs.

Policy Recommendation

- Policies related to access to financing should be based on gender-disaggregated data to promote equity in SME financing.

Practical Recommendations

- Business associations and SME service providers can promote profiling of fundraising success stories and the use of digital financing solutions among WSMEs, as well as provide more aggressive funding opportunities, which will help address the lack of awareness among WSMEs.
- Financial institutions and service providers catering to SMEs should provide fundraising and business scalability workshops with practical tools for business development targeted at SMEs.
- Financial institutions and SME financing providers can promote and provide unconscious bias training as part of a multipronged approach to improve diversity, equity, and inclusion in financing.

Increasing Use of Government Grants

Effective utilization of grants requires deliberate planning by the WSMEs. The panel explained that the Singaporean government's vast selection of funding schemes can be overwhelming to navigate for small businesses with limited human resources. WSMEs may struggle on several fronts, including identifying grants relevant to their specific needs, conforming to grant criteria limitations, and, if successful, fulfilling grant stipulations to access the funding. Many WSMEs also do not have a clear digital transformation strategy articulated and hence are unsure of their eligibility and suitability when accessing grants. While there are five trade associations and chambers providing a network of 12 SME centers as a one-stop resource for entrepreneurs, there remains a need for greater awareness of these centres among women entrepreneurs, as well as encouragement for them to reach out for support.

Practical Recommendations

- To raise a greater awareness of the resources available at SME centers, they should be branded and marketed more proactively as a one-stop resource for successful modern WSMEs, helping them navigate the grant process.
- Communication strategies for raising awareness of the available grant initiatives should be reviewed and improved to more effectively reach a wider WSMEs audience.

Structuring Better Grant Schemes

The panel emphasized that the Singaporean grantmakers should strive for an in-depth and up-to-date understanding of the diverse needs of SMEs so that the grant schemes can be structured to address challenges faced by entrepreneurs. Currently, some grant schemes operate on a reimbursement basis, which may be a deterrent as small businesses would find it challenging for their cash flow to pay upfront for digital solutions.

Policy Recommendation

- When studying SMEs for grant-making policies, their needs should be differentiated based on size, maturity, industry, business model and cash-flow cycle so that the grants can be designed to reach a wider range of qualifying SMEs with varying backgrounds.

Improving Access to Mentorship and Network

The panelists agreed that existing mentorship programs for WSMEs, especially the conventional ones of matching or assigning mentors to mentees, were mostly ineffective. They further noted that mentoring is time-consuming and not enough attention is paid to expectation setting. Instead of matching mentors to mentees, it was noted that mentoring relationships work when they develop organically and are based on genuine rapport. The AP concurred with the observation that WSMEs tend to seek support and guidance within their personal circles, which can be limiting as their peers are likely to be experiencing similar challenges and pathways. More measures are needed to upgrade the design of existing mentorship programs while shifting the mindsets of WSMEs to prioritize the expansion of their network and access to a variety of mentors.

Policy Recommendation

- The government can provide grants to subsidize the cost of mentoring so that mentoring programs can be monetized for increased incentives for both mentors and mentees, and to address dropouts. Such grants should be extended to existing volunteer-based mentoring programs and peer mentoring arrangements developed beyond formal mentoring programs.

Practical Recommendations

- Business and networking associations should consider promoting monetized mentoring programs to remunerate mentors and provide mentor training to improve mentoring quality and increase mentor commitments, particularly if this is supported by a government subsidy.
- The mentoring program should include meaningful touchpoints designed to provide opportunities for the participants to establish genuine rapport with the mentors and grow their relationship organically.

Supporting Successful Execution of Digitalization

The resource-strapped WSMEs are unlikely to have dedicated digital transformation experts who can create and implement a holistic and long-term digital strategy for the businesses. With a gap in digital skills to effectively leverage digital tools, WSMEs tend to prioritize digital solutions for customer-centric processes over others, in an effort to survive amidst the global pandemic. As a result, the digital solutions adopted are disintegrated, and SMEs need significant support in the form of system integrators for digital tools to truly support their business processes.

Practical Recommendations

- SME centers should proactively reach out to WSMEs to raise awareness about the importance of developing a roadmap for digital transformation.
- SME centers and business associations can form strategic partnerships to promote the available digitalization programs and grants among SMEs, in addition to engaging digital transformation experts so that WSMEs with low digital skills can seek more accessible technical assistance from the experts.

Tackling Unconscious Gender Bias

The panel noted that gender bias can be better mitigated by utilizing gender-disaggregated data. There is a significant perception of equality in Singapore, which could lead to disadvantages faced by women and minorities failing to be acknowledged within the Singaporean SME business community. Panelists asserted that gender inequity continues to exist, despite the perception of equality, and brought up the hidden quandary where women do not want to talk about bias they have faced to avoid being seen as 'troublesome' or 'difficult' to work with. The scarcity of gender-disaggregated data and research further conceals gender inequities.

Policy Recommendation

- Policies should be created based on gender-disaggregated data as a foundation for grant schemes that are aimed to solve WSMEs' most pressing challenges in digitalizing their business processes and management.

Policy and Practical Recommendation

- Gender-disaggregated data should be collected to highlight women's economic participation, particularly among the SME community, and widely published to educate key stakeholders.

Practical Recommendation

- Women's business associations should use existing facts and data to raise awareness of the existing covert gender barriers and biases to demonstrate the impact on women entrepreneurs.

Supporting SMEs to cope with the COVID-19 Pandemic

The panel commended the government for helping SMEs to cope with the impact of the COVID-19 pandemic, and particularly for their timeliness, availability, and effectiveness.

Policy Recommendations

- The Singaporean government should continue providing extensive and comprehensive support measures to help SMEs cope with the impact of COVID-19.

- Grants for SMEs should include financing change management activities, since this is a significant factor in the digital transformation process.

Practical Recommendation

- SME centers should offer additional advisory services, specifically in the areas of digital marketing, branding, change management, and business model adaptation, to cope with the changing environment.

4.4 Conclusion

Looking through the lens of the four pillars framework, this study analyzed the challenges and opportunities faced by WSMEs in terms of (1) access to financing; (2) access to mentoring, networking, and skills; (3) digitalization of business processes and management; and (4) crisis management (COVID-19).

Being the regional tech leader with tremendous support from the government, Singapore has made significant strides towards the digital transformation of its SMEs. Though the majority of the research participants were able to access government grants and traditional bank loans, WSMEs missed a huge opportunity in seeking out the newly available digital financing solutions, as well as gender-lens investment funds, many of which not only offer investment capital but also technical know-how and business advisory. Equipping WSMEs with a clear digital roadmap and strategy will help them assess the suitability and eligibility of the government grants more effectively, as well as enhance their business capabilities to survive and thrive in the post-COVID era.

Secondly, the majority of WSME participants currently relied on industry peers, family, friends and informal advisors for business advice and knowledge, not having a formal mentor or advisory board. They also took advantage of online learning, digital resources and webinars to continue their learning journey. The WSMEs in this study expressed strong needs in finding mentors, building their business networks and increasing their skills—indicating their preference for having a mentor who also shares the same background and struggles as a fellow woman business owner. The experts also concurred that there was a surge in demand for business counseling, mentorship, and learning business-related skills as the women entrepreneurs strove to cope with the impact of the COVID-19 pandemic.

In terms of digitalizing business processes and management, all WSME participants had adopted various forms of digitalization, ranging from financial and accounting digital tools to more advanced process automation using AI, with

varying degrees of digital intensity. This study found that only a small number of WSMEs were in the high-intensity category, whereas almost half of them were in the medium-intensity category and the rest in the low-intensity one, indicating that the women entrepreneurs would continue to need technical and financial support for digitalization in the future. While the government grants played an important role in supporting the WSMEs as they digitalized their business processes, the experts cautioned that the vast selection of funding schemes could be overwhelming for small businesses with limited human resources. In addition, they pointed out that the SMEs need significant support in the form of system integrators in order for digital tools to truly support their business processes.

Although COVID-19 has created grave difficulties for WSMEs, it should also be seen as an opportunity to accelerate digital transformation efforts as 75% of the participants managed to increase digitalization while trying to cope with the impact. According to 19 out of 20 WSMEs, digital technologies played a critical role in lessening the business impacts on them. The authors found out that about half of the 20 WSMEs were surviving, seven were thriving and the remaining two were struggling because of the changes imposed by the pandemic. Those who were thriving came mostly from the service sector, displaying resilience, adaptability, and agility by transforming their product and service offerings to a digital format. The majority of the WSMEs in this study were appreciative of the Singaporean government's timely support for SMEs, which helped them cope with the impact of the pandemic through various measures, such as cash grants, rental waivers, loans and training grants for upskilling local employees.

The study concludes that digitalization, combined with the Singaporean government's effective SME support initiatives, alleviated the negative impact of COVID-19 among the WSME participants. During the study, gender issues did not surface as a serious barrier for WSMEs across the four pillars. Yet, the lack of readily available gender-disaggregated data for SMEs indicated

that there was a pressing need to gather such data, which could shed light on the specific challenges faced by women entrepreneurs and remedy those challenges with more informed policy and practical solutions.

The report has also identified the opportunities and recommendations that need to be addressed to uplift and future-proof WSMEs in Singapore through the continuing digitalization process. We believe that most WSME research participants will not only survive, but thrive beyond the COVID-19 pandemic because of their resilience, pragmatism, adaptability, and hard-working nature.

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- ²⁹ Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., & Buckley, N. (2015). *Strategy, not technology, drives digital transformation*. MIT Sloan Review and Deloitte University Press. https://www2.deloitte.com/content/dam/Deloitte/fr/Documents/strategy/dup_strategy-not-technology-drives-digital-transformation.pdf

Appendices

Appendix A: Digital Maturity Index Calculation

In order to calculate the final score of each WSME, we evaluated the extent of digital adoption by the company in Pillar 1, Pillar 2, and Pillar 3 of the study. We calculated the scores for Pillar 1 and Pillar 2 according to the simple formula below:

Rate for Pillar 1 & 2 (%) = *Sum of verticals with digital adoption / Sum of total verticals*. For Pillar 3, we used a weighted approach to calculate the rate because the verticals can be categorized into three categories, each indicating the varying degree of technical expertise it requires to adopt the solution.

Table A.1 Weighting for Pillar 3 verticals

Category (Weight)	Verticals	Criteria
Basic (Weight: 1)	<ul style="list-style-type: none"> • Booking systems • Cloud Storage & Collaborative Documents • Digital Marketing - Design Tools • Digital Marketing - Scheduling (e.g., Buffer) • Digital Marketing - Social Media Channels • Digital Team Communications / Chat 	Outside-of-the-box solutions that can be used without any integration
Intermediate (Weight: 3)	<ul style="list-style-type: none"> • Customer Relationship Management (CRM) • Digital Marketing - E-mail Automation • Financial & Accounting Tools • Human Resources • Inventory Management • Marketplace Tools (e.g., Shopify) • Payments & Digital Transactions (POS) • Software Development Tools (Website Builders) 	Platform solutions requiring varying degrees of integration to the business processes
Advanced (Weight: 6)	<ul style="list-style-type: none"> • Cybersecurity • Data Analytics Software • Enterprise Resource Planning (ERP) • Machine Learning / AI • Regulatory Compliance • Vendor Management (Procurement & Supply chain) 	Custom solutions requiring advanced engineering capability to implement

The weighted formula used to calculate the rate for Pillar 3 was as follows:

$$\text{Rate for Pillar 3 (\%)} = (1 \times \text{Sum of basic verticals with digital adoption} + 3 \times \text{Sum of intermediate verticals with digital adoption} + 7 \times \text{Sum of advanced verticals with digital adoption}) / \text{Sum of total verticals}$$

Lastly, to combine each of the rates to final scoring, the following formula was used:

$$\text{Final Score} = ((20 \times \text{Pillar 1 Rate}) + (20 \times \text{Pillar 2 Rate}) + (60 \times \text{Pillar 3 Rate}))$$

Each of the companies was cagedorized into (1) Indifferent; (2) Basic Adopter; (3) Intermediate Adopter; or (4) Advanced Adopter according to the final score (see Table A.2).

Table A.2 Final score category for Digital Maturity Index

Final Score	Category
0 - 15	Indifferent
16 - 30	Basic Adopter
31 - 45	Intermediate Adopter
> 46	Advanced Adopter

Appendix B: Criteria for Selecting SEs and MEs in Vietnam

Sector	Item	Micro	Small	Medium
Agriculture, forestry and fishery	Number of employees (with insurance)	< 10	11–100	101–200
	Total revenue (VND)	< 3 billion	> 3–50 billion	> 50–200 billion
	Total capital (VND)	< 3 billion	> 3–20 billion	> 20–100 billion
Industry and construction	Number of employees (with insurance)	< 10	11–100	101–200
	Total revenue (VND)	< 3 billion	> 3–50 billion	> 50–200 billion
	Total capital (VND)	< 3 billion	> 3–20 billion	> 20–100 billion
Commerce and services	Number of employees (with insurance)	< 10	11–50	51–100
	Total revenue (VND)	< 10 billion	> 10–100 billion	> 100–300 billion
	Total capital (VND)	< 3 billion	> 3–50 billion	> 50–100 billion

Source: Decree No. 39/2018/ND-CP, 2018

Appendix C: Key Legislation for Vietnamese SMEs

Legislation	Contents
Law No. 04/2017/QH14	This law took effect on January 1, 2018. It offers assistance with accessing credit and funding, assists with fiscal and business processes, including but not limited to production, technological, advisory, consultancy, human resource and legal assistance.
Decree No 37/2020/ND-CP	This decree allows small and medium-sized businesses to access investment incentives.
Circular No 05/2019/TT/BKHDT	Women-owned SMEs also had access to consulting services and subsidies within the consulting network.

Source: Vietnam Government, 2018–2020

Appendix D: Profiles of Vietnam's Experts and Advisory Panel Members

Name & Role	Profile Details
<p>Ms. Nguyễn Thị Hương Liên</p> <p>Vice chairwoman of Vietnam Association of Science and Technology Enterprises (Expert interviewee)</p>	<p>Vice chairwoman of Vietnam Association of Science and Technology Enterprises and vice president of Sao Thai Duong Joint Stock Company.</p>
<p>Ms. Từ Thu Hiền</p> <p>Founder and CEO of WISE (Expert interviewee)</p>	<p>Ms. Hien is the CEO of WISE (Women's Initiative for Startups and Entrepreneurship). Launched in 2017, WISE is an initiative connecting and supporting women-led SMEs and startups. WISE now has a community of 5000 women in Vietnam and aims to expand connection with the women's business networks of Laos, Cambodia, and Myanmar. WISE provides and connects women with opportunities and resources they need to start and do business.</p>
<p>Ms. Nguyễn Thị Lệ Quyên</p> <p>Ministry of Planning and Investment (Expert interviewee and panelist)</p>	<p>Ms. Lệ Quyên is currently an official at the Agency for Enterprise Development, Ministry of Planning and Investment, Vietnam. She has experience in policy making, especially policy to simplify regulation on the establishment and operation of VCs in Vietnam, connecting stakeholders in the ecosystem, and attracting foreign VCs into Vietnam (successfully attracted \$50M in funding).</p>
<p>Ms. Đỗ Thu Ngân</p> <p>Director at PriceWaterhouseCoopers (Panelist)</p>	<p>Ms. Đỗ Thu Ngân is an investment, finance and business management executive with a wide range of experience in investment, banking, corporate finance, business management, auditing, and accounting industries, as well as in corporate governance and board leadership.</p>
<p>Mr. Quang Phạm</p> <p>Crescent Group Capital Management (Panelist)</p>	<p>A private equity investor with 15+ years of working experience; covering the Vietnam market for Crescent Group Capital Management, a B2B PE Fund headquartered in Singapore and Shanghai with offices in Ho Chi Minh City, Jakarta, and Manila. He co-founded VIGroup, a \$500M++ Vietnam-focused private investment firm.</p>
<p>Ms. Trương Lý Hoàng Phi</p> <p>President & CEO IBP (Panelist)</p>	<p>Ms. Phi has been a prominent influencer and key player in the Vietnam startup ecosystem. Ms. Phi Truong Founded BSSC – Business Startup Support Center, the very first startup incubator in 2010. She has consulted and mentored more than 7,000 startups and SMEs in Vietnam, some of which also got her as their angel investor. In the venture world, she's also well-known as Shark Phi since her appearance on Shark Tank Vietnam, season 1. She has also been very active in shaping startup policies at a national and provincial level. She's one of the key members behind several foundational startup programs in Vietnam, especially in HCMC, including HCMC's Innovation Fund, Vietnam's ventures investment regulations, Vietnam's SMEs law.</p>
<p>Ms. Nguyễn Thị Diệu Hằng</p> <p>CEO of BSSC Vice President of YBA (Panelist)</p>	<p>Ms. Diệu Hằng has been working in senior management positions for large companies with charter capital greater than VND 80 billion since she was young. She has extensive experience in business, executive management, human resources, and information technology. Ms. Dieu Hang has a great passion for technology and finance. In addition to being an alumnus of the first formal MBA course at the National Academy of Public Administration of HCM City, she has rich knowledge and experience in the field of human resource management. Her comprehensive knowledge and experience in many fields give her the opportunity to share and participate in supporting startup activities.</p>

Profiles of Vietnam’s Experts and Advisory Panel Members

Name & Role	Profile Details
<p>Ms. Linh Huỳnh Executive Director, WTC Binh Duong Co., Ltd. (Panelist)</p>	<p>Ms. Linh Huỳnh is in charge of trade promotion and venue operation at the WTC Binh Duong New City complex. Connecting suppliers and distributors is a critical role of the organization. Ms. Linh Huỳnh has been overseeing the operations for two years, with 15 years of experience in trade promotion in Southeast Asia. She was the director of the Praxis partnership project (2012–2018) funded by DAAD – Germany, supporting 1000 SMEs during her career to enhance innovation management capacity as well as develop an internationalization strategy.</p>
<p>Mr. Thành Lê Partner at Lotus Impact (Panelist)</p>	<p>Mr. Thanh is a business advisor and investor in small businesses. He worked with Lotus Impact from 2013 until 2019 as investment officer and acceleration program manager with a focus on social impact businesses. Thành has founded two educational businesses and is in charge of the operations and financial management of these new ventures. Lotus Impact, founded by James Bui in 2013, is an impact investing advisory firm with a focus on Southeast Asia and Pacific Islands. The company had been selected to implement multiple impact projects in Vietnam and the Pacific Islands to help women entrepreneurs and impact business owners to scale their impact, especially smallholders’ farmers.</p>

Source: Vietnam Government, 2018–2020

Appendix E: Criteria for Selecting SEs and MEs in South Korea

Main Businesses		Medium-Sized Enterprise (Average Sales)	Small-Sized Enterprise (Average Sales)
Manufacturing (six business types)	Manufacturing of clothing, clothing accessories, and fur products	USD 135M or less	USD 10.8M or less
	Manufacturing of leather, bags, and shoes		
	Manufacturing of pulp, paper, and paper products		USD 10.8M or less
	Primary metal manufacturing		
	Electrical equipment manufacturing		USD 7.2M or less
	Furniture manufacturing		
Agriculture, forestry, and fisheries			USD 7.2M or less
Mining			
Manufacturing (12 business types)	Food manufacturing	USD 90M or less	USD 10.8M or less
	Tobacco manufacturing		
	Textile product manufacturing (excluding clothing manufacturing)		USD 7.2M or less
	Timber and wood product manufacturing (excluding furniture manufacturing)		
	Manufacturing of coke, briquettes, and refined petroleum products		
	Chemicals and chemical product manufacturing (excluding medicine manufacturing)		USD 10.8M or less
	Rubber and plastic product manufacturing		USD 7.2M or less

Criteria for Selecting SEs and MEs in South Korea

Main Businesses		Medium-Sized Enterprise (Average Sales)	Small-Sized Enterprise (Average Sales)
	Metalwork product manufacturing (excluding machine and furniture manufacturing)		USD 10.8M or less
	Manufacturing of electronic parts, computers, video, audio, and communications equipment		
	Manufacturing of other machines and equipment		
	Automobile and trailer manufacturing		
	Manufacturing of other transportation equipment		
Supply of electricity, gas, steam, and air conditioning	USD 10.8M or less		
Waterworks	USD 7.2M or less		
Construction	USD 4.5M or less		
Wholesale and retail businesses	USD 10.8M or less		
Manufacturing (six business types)	Beverage manufacturing		USD 7.2M or less
	Printing and recording media duplication	USD 10.8M or less	
	Manufacturing of medical materials and pharmaceuticals	USD 7.2M or less	
	Manufacturing of nonmetallic mineral products		
	Manufacturing of medical, precision, optics and clocks		
	Manufacturing of other products		
Water, sewage, and waste disposal, raw material recycling (excluding waterworks)	USD 2.7M or less		
Transportation and warehousing	USD 7.2M or less		
Information and communications	USD 4.5M or less		

Criteria for Selecting SEs and MEs in South Korea

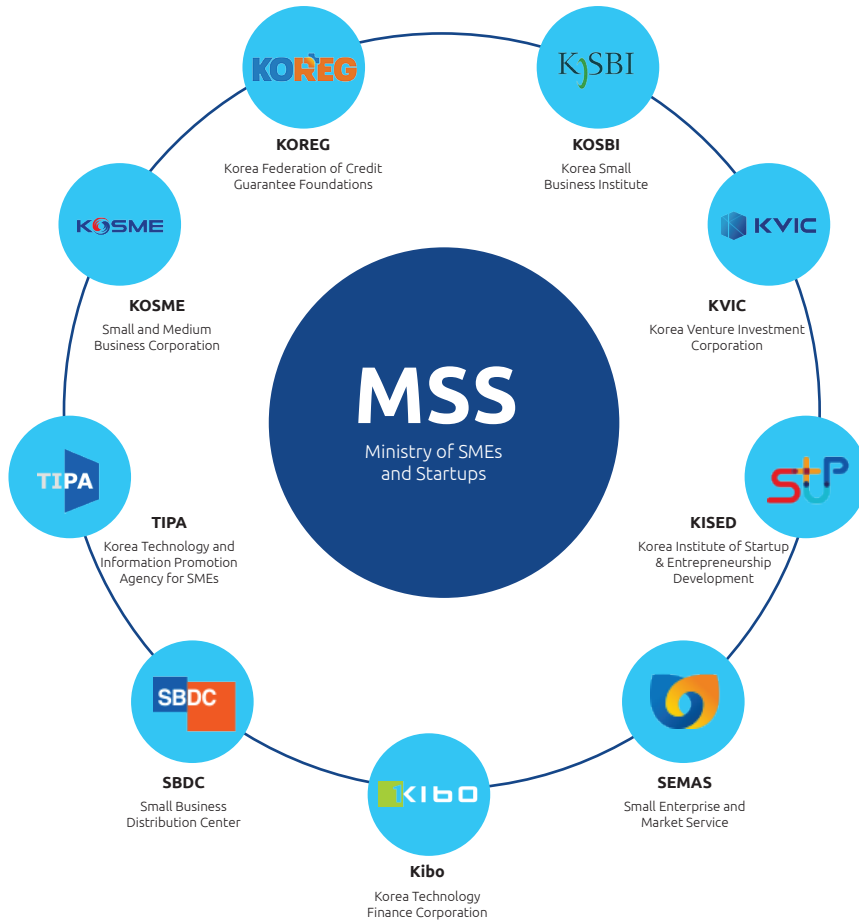
Main Businesses	Medium-Sized Enterprise (Average Sales)	Small-Sized Enterprise (Average Sales)
Repair of industrial machinery and equipment	USD 54M or less	USD 0.9M or less
Professional, scientific, and technical services		USD 2.7M or less
Business facility management, business support, and rental services (excluding rental businesses)		USD 2.7M or less
Health and social welfare services		USD 0.9M or less
Arts, sports and leisure services		USD 2.7M or less
Repair and other personal services		USD 0.9M or less
Accommodations and restaurants	USD 36M or less	USD 0.9M or less
Finance and insurance		USD 7.2M or less
Real estate businesses		USD 2.7M or less
Leasing businesses		USD 2.7M or less
Education services		USD 0.9M or less
Note: The below businesses follow the same standard as before the amendment, according to the Korean Standard Industrial Classification (revised in July 2017)		
Manufacturing of new seats for automobiles	Average sales less than USD 135M	Average sales less than USD 10.8M
Manufacturing of rail vehicle seats among manufacturers of rail vehicle parts and related devices		
Manufacturing of aircraft seats among aircraft part manufacturers		

Source: Ministry of SMEs and Startups <https://www.mss.go.kr/site/eng/02/2020100000002019110604.jsp>

Appendix F: Relevant South Korean Government's Laws and Regulations

Table F.1 Relevant South Korean Government's Laws and Regulations

Title	Outline
Act on Support for Female-owned Businesses	Seek actual gender equality in the economic realm by actively supporting the activities of female-owned businesses and women's establishment of businesses and contribute to the development of the national economy by facilitating women's economic activities and elevating the status of businesswomen.
Article 2 of the Framework Act on Small and Medium-sized Enterprises Article 3 of the Enforcement Decree of the Framework Act on Small and Medium-Sized Enterprises	Size classification by business type: The 3-year average sales of a company's main business should meet the criteria.
MSS's SMILE Program	The Ministry of SMEs & Startups (MSS) established a "Women's Business Brand" under its SMILE program brand, which stands for "Supporting Women into Leading Entrepreneurs". The MSS built 11 national support centers and assigned one center per region to provide free consulting services for women entrepreneurs, encouraging them to take advantage of the right information at the right time.
Korean New Deal (2020)	<ul style="list-style-type: none"> • The Digital New Deal lays down the foundations for a digital economy that will spur economic growth and innovation. • The Green New Deal aims to transition South Korea to a net-zero emissions economy.
Korea Credit Guarantee Fund Act	Korea Credit Guarantee Fund's objective is to lead the balanced development of the national economy by extending credit guarantees for the liabilities of promising SMEs that lack tangible collateral.
Article 30 of the Enforcement Decree of the Act on Contracts to which the State is a Party and Article 30 of the Enforcement Decree of the Act on Contracts to which a Local Government is a Contracting Party	Based on the Women's Business Certification, public institutions prioritize WSMEs when signing a purchase contract with the Women's Business Products Public Purchase System. WSMEs can account for up to KRW 50 million in private contracts with the public institutions, which is a big benefit compared to the general criteria of up to KRW 20 million.



Ministry of SME & Startups Affiliated Organizations

Appendix G: South Korea Advisory Panelists and Experts' Profiles

	<p>Jiyun Jung (Advisory Panelist) Vice-President, Merry Year Social Company (MYSC)</p> <p>Merry Year Social Company (MYSC) offers social innovation consulting, social venture acceleration and impact investment. MYSC conducts project planning and consulting for solving social issues via business and fosters companies in this methodology. The aim is to create benefits for society, by connecting corporations and public institutions with SMEs' implementations and ideas.</p>
	<p>Won Hee Kim (Advisory Panelist) Chairman, Internal Gender Commission and Senior Researcher, Merry Year Social Company (MYSC)</p> <p>As the Senior Researcher and Chairman of the Internal Gender Commission at MYSC, Won Hee designs structures to capture social issues that are in a blind spot (gender, local) and creates solutions with stakeholders—spreading the methodology of finding sustainable solutions to social problems via manuals, brochures, and workshops.</p>
	<p>Hyunsung Kim (Advisory Panelist) Director of Small Business Digital Division, Small & Medium Business Distribution Center</p> <p>Previously Director of Digital Transformation for the city of Seoul and member of the Presidential Committee for Social Innovation and Social Economy. The Small and Medium Business Distribution Center is a public institution established in 1995 to support small and medium-sized enterprises' market. As director of the Small Business Digital Division, he operates a department store dedicated to small and medium-sized companies.</p>
	<p>Sungyong Kwon (Advisory Panelist) Secretary General of Korea Venture Business Women's Association</p> <p>Previously head of the Policy Planning Office at Korea Venture Business Women's Association. The Korea Venture Business Women's Association's purpose is to foster a better business environment for female entrepreneurs in Korea.</p>
	<p>Hyekyung Ko (Advisory Panelist) FASTFIVE Office Solution Lead</p> <p>Currently working at FASTFIVE, a leading serviced office/co-working space in Korea, as Head of Product.</p> <p>Previously Freelanced as an independent consultant regarding management, operations, and research. Worked at Foodfly (www.Foodfly.co.kr), an online food ordering and delivery service startup located in Seoul, Korea. Developed new business and was mainly in charge of overall business operations, including mobile and web service design.</p> <p>Previously worked at Samsung's headquarters, developing sales for mobile services. Presented and introduced new services from headquarters to local subsidiaries. Also involved in localizing mobile services for Latin America.</p>
	<p>Jongho Lee (Advisory Panelist) Azure Specialist, APAC Diversity and Inclusion Champion at Microsoft Korea</p> <p>Jongho is a Cloud Specialist at Microsoft. He is a member of Microsoft's Diversity and Inclusion (D&I) Asia Pacific Council, which helps women, children, and those with disabilities. He believes that IT technology can empower every person on the planet to achieve a greater social impact. As a network engineer, after strategic and planning careers in telecommunications, he is now focused on digital transformation and the social impact of IT on businesses.</p>


Eunielle Yi (Advisory Panelist and Expert)

Co-founder and CBDO of CAN Lab and Partner at TheVentures

Eunielle is an investor and entrepreneur with over 12 years of experience in the digital ecosystem. She is the co-founder of CAN Lab, which helps community-based service SMEs with digital strategy and execution. Prior to TheVentures and CAN Lab, she oversaw business strategy and digital transformation for various sectors, such as mobile gaming, consumer brands, and blockchain technology, after her first professional experience in Paprika Lab, a Korean gaming startup acquired by GREE, a global mobile gaming giant, in 2012. Eunielle's business interests are collective services, open innovation, and social impact.


Jiyong Kim (Expert)

Community Leader of Startup Women in Korea's Community Accelerator and Head of Korea's Facebook Community Leadership Program

Jiyong has been heading Startup Women in Korea (SWIK) since 2017. Now a 5,000+ member community, SWIK aims to empower women in startups in order to foster a healthy entrepreneurial ecosystem.


Mikyung Park (Expert)

Founder & CEO of FORCS

Established in 1995, FORCS is recognized as the leading enterprise e-form and reporting solutions provider in Korea. Today, it's operations span across Asia and Europe, with offices in Korea (HQ), the UK, Japan, and Singapore.

Janice Han (Expert)

Deputy General Director, Global Startup Division of the Korea Institute of Startup & Entrepreneurship Development

Specialized in managing global acceleration programs and supporting Korean startups, utilizing five years' experience in sourcing 400+ talented startups.

Korea Institute of Startup & Entrepreneurship Development contributes to the development of the national economy through the growth of startup businesses and job opportunities and promotes the technology-based startups of future entrepreneurs by cultivating entrepreneurial spirit.

Appendix H: Definition of Woman-Owned SME in Singapore

For the purpose of this publication, a woman-owned SME is defined as one where a woman or group of women own more than 30% of the company's shares and are involved in the day-to-day operations and decision making in the company. SMEs in Singapore are defined by the Singaporean government as companies with:

- (i) at least 30% local shareholding; and
- (ii) group annual sales turnover of not more than SGD 100 million (USD 74 million), or a group employment size of not more than 200 employees.¹

Micro SMEs are firms with an annual revenue below SGD 1 million (USD 0.74 million) or fewer than 10 employees.² Beyond that, the government does not officially distinguish between small and medium-sized enterprises. For the purpose of this publication, the authors have defined a small-sized enterprise (SE) in Singapore as a company with less than 200 employees, and making SGD 1 million (USD 0.74 million) to SGD 10 million (USD 7.4 million) in annual revenue, while a medium-sized enterprise (ME) is defined as a company having less than 200 employees and making SGD 10 million (USD 7.4 million) to SGD 100 million (USD 74 million) in annual revenue, and only SMEs with at least 30% local shareholding were selected. The SGD 10 million (USD 7.4 million) threshold was selected based on the qualifying criteria for audit exemption as a "small company"³; a company qualifies for this exemption if it has at least two of the following:

- Total annual revenue of not more than SGD 10 million.
- Total gross assets at the end of the financial reporting period of not more than SGD 10 million.
- Total number of employees at the end of the financial year was not more than 50.

¹ Update in definition of SMEs in relation to eligibility for Enhanced Training Support for SMEs Scheme and Activation of Updated SME Definition in SkillsConnect. (2014, April 21). SkillsConnect. https://www.skillsconnect.gov.sg/sop/portal/important%20Notes/SME_definition_not_updated.jsp

² Enterprise Singapore. (2020, May 15). SME Centres - 'go-to' help for enterprises to build capabilities, scale-up and collaborate to grow. Enterprise Singapore. <https://www.enterprisesg.gov.sg/media-centre/media-releases/2019/april/sme-centre-update>

³ Accounting and Corporate Regulatory Authority. (2019, January 29). More Details on Small Company Concept for Audit Exemption. Accounting and Corporate Regulatory Authority. <https://www.acra.gov.sg/legislation/legislative-reform/companies-act-reform/companies-amendment-act-2014/two-phase-implementation-of-companies-amendment-act-2014/more-details-on-small-company-concept-for-audit-exemption>

Appendix I: List of Singapore's Government Digitalization Grants and Tools for SMEs

Name	Type	Website
Digital Resilience Bonus	Bonus	https://www.imda.gov.sg/programme-listing/smes-go-digital/Digital-Resilience-Bonus
Chief Technology Officer-as-a-Service (CTOaaS)	Digital Tech Consulting Service	https://www.imda.gov.sg/programme-listing/smes-go-digital/CTOaaS
SME Digital Tech Hub	Digital Tech Consulting Service	https://www.imda.gov.sg/programme-listing/smes-go-digital/sme-digital-tech-hub
Agri-food Cluster Transformation (ACT) Fund	Fund	https://www.sfa.gov.sg/food-farming/funding-schemes/act-fund
Business Improvement Fund (BIF)	Fund	https://www.stb.gov.sg/content/stb/en/assistance-and-licensing/grants-overview/business-improvement-fund-bif.html
Stronger Together, Aiding Recovery	Fund	https://www.sgtech.org.sg/starfund
Enterprise Development Grant (EDG)	Grant	https://www.enterprisesg.gov.sg/financial-assistance/grants#for-local-companies-
Financial Sector Tech & Innovation Digital Acceleration Grant	Grant	https://www.mas.gov.sg/-/media/MAS/resource/covid-19/ANNEX-B--DIGITAL-ACCELERATION-GRANT.pdf
International Co-Innovation Programs	Grant	https://www.enterprisesg.gov.sg/financial-assistance/grants#for-local-companies-
Market Readiness Assistance (MRA) Grant	Grant	https://www.enterprisesg.gov.sg/financial-assistance/grants#for-local-companies-
Operation & Technology Roadmap	Grant	https://www.a-star.edu.sg/enterprise/innovation-offerings/programmes-for-smes/operation-technology-roadmap
Productivity Solutions Grant (PSG)	Grant	https://www.enterprisesg.gov.sg/financial-assistance/grants#for-local-companies-
Skills Future for Digital Workplace	Grant	https://www.skillsfuture.gov.sg/digitalworkplace
SkillsFuture Enterprise Credit (SFEC)	Grant	https://www.enterprisesg.gov.sg/financial-assistance/grants#for-local-companies-

List of Singapore's Government Digitalization Grants & Tools for SMEs

Name	Type	Website
Start Digital	Grant	https://www.imda.gov.sg/programme-listing/smes-go-digital/start-digital-pack
Nationwide E-Invoicing Initiative	Initiative	https://www.imda.gov.sg/programme-listing/nationwide-e-invoicing-framework
Enterprise Financing Scheme (EFS)	Loans & Insurance	https://www.enterprisesg.gov.sg/financial-assistance/loans-and-insurance
Temporary Bridging Loan Programme	Loans & Insurance	https://www.enterprisesg.gov.sg/financial-assistance/loans-and-insurance
T-Up Programme	Tech Support	https://www.a-star.edu.sg/enterprise/innovation-offerings/programmes-for-smes/technology-for-enterprise-capability-upgrading
Technology Adoption Programme (TAP)	Tech Support	https://www.a-star.edu.sg/i2r/partnerships/small-and-medium-sized-enterprises-(smes)
Smart Industry Readiness Index Assessment	Toolkit	https://www.siri.gov.sg/
SGUnited Jobs and Skills	Training / Hiring	https://www.ssg-wsg.gov.sg/sgunitedjobsandskills.html
SGUnited Mid-Career Pathways – Company Training (SGUP)	Training / Hiring	https://www.ssg-wsg.gov.sg/programmes-and-initiatives/sgunitedmidcareerpathwaysprogramme.html
SGUnited Skills Programme	Training / Hiring	https://www.skillsfuture.gov.sg/sgunitedskills
Resources for Businesses	Useful Link	https://www.smartnation.gov.sg/resources/resources-for-businesses
Skills Future SG - Workforce SG	Useful Link	https://www.ssg-wsg.gov.sg/

Appendix J: Rapid Growth of Alternative Financing in Singapore

The tech-supportive environment in Singapore has led to the rapid growth of emerging industries in alternative financing. With favorable policy and regulations, the government, especially the Monetary Authority of Singapore (MAS), has provided fast-track support for new fintech companies, such as peer-to-peer lending, invoice financing, equity crowdfunding (although only available for institutional investors and not yet regulated for retail investors). These new fintech solutions are designed to mostly serve the SME sector in Singapore.

The most commonly used alternative financing solutions by SMEs in Singapore are P2P-lending platforms that connect investors to SMEs and approve non-collateralized loans in as little as 24 hours, and invoice financing—also defined as invoice trading—which enables SMEs access to short-term loans against invoices due from their customers.

Some of the most active platforms are as follows:

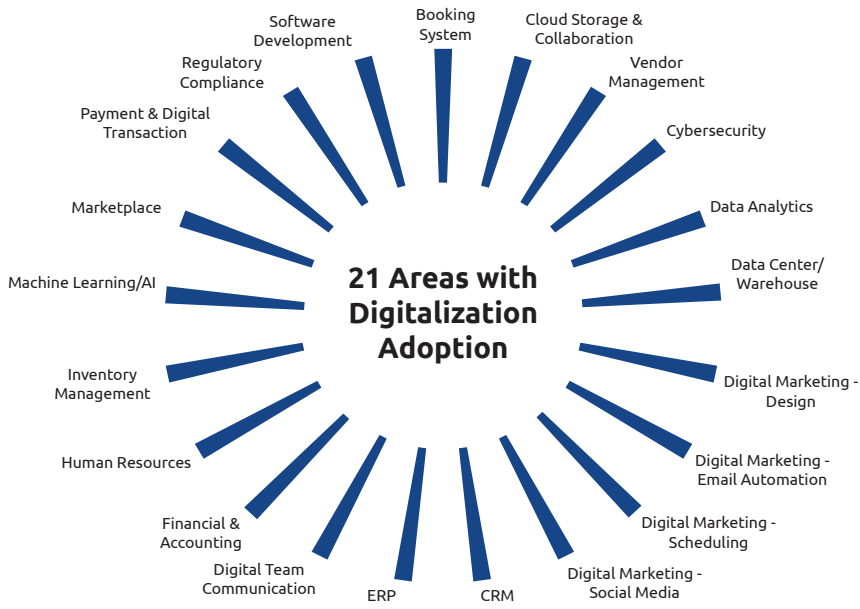
- **Aspire:** a new digital bank with borderless payments, corporate cards, expense management and credit solutions. Despite launching in May 2020, it has already reached over SGD 1 billion in annualized transaction volume;
- **Validus:** Singapore's largest peer-to-peer lending platform;
- **Funding Societies, GrabFinance, Finaxar, MoolahSense, Zetl:** flexible, specialized working capital loans and/or invoice/purchasing financing;
- **Fundnel:** MAS-licensed equity and lending crowdfunding platform to match startups with investors for larger ticket sizes, both loans and equity.

Appendix K: Digital Intensity Model Used in Singapore Case Study

The intensity model provides a framework for categorizing WSMEs based on the extent of their technology adoption, from which the government can offer tailored help based on where each WSME is located in the digital intensity model. The digital intensity model was assessed based on interviews by looking at the tools that were utilized by WSMEs.

The tools that were found to have been used by WSMEs were then each categorized into one of the 21 areas of business where digitalization was adopted (see Figure K.1).

Figure K.1 Areas with digital solution adoption



To determine the level of digital intensity, the authors used the following equation:

$$Intensity\ Score = n/21$$

Where n is defined as the number of areas in which digital solutions have been adopted for each WSME. The category, from low, medium, to high, is defined in Table K.1.

Table K.1 Categorization of digital intensity model for Singapore WSMEs

Category	Definition
High	66% < Intensity Score ≤ 100%
Medium	33% < Intensity Score ≤ 66%
Low	0% < Intensity Score ≤ 33%

Appendix L: List of Singapore's Advisory Panelists



Irene Boey

Chairperson of the @ASME SME center, president of UWAS, data strategy and consulting director, AI and data solutions.

Irene Boey is the consulting director of Integral Solutions (Asia) Pte Ltd. She is responsible for leading Integral's data mining and CRM business in Asia. Her responsibilities include solving customers' business problems by simplifying advanced technology to address users' business needs. She has implemented many successful data mining and CRM projects in various industries, like banking and finance, telco, retail and wholesalers, government, and manufacturing.

Ms Boey was involved in bringing data mining technologies to Asia since 1994 through Integral Solutions (Asia) Pte Ltd. She was a pioneer in data mining consulting in Asia. With her long history in data mining and data analytics, she has accumulated a good collection of business best practices from these different industries.

She has worked for Integral Solutions (Asia) Pte Ltd since 1994. She has more than 10 years of business and marketing experience in the electronics and IT industries and holds a marketing degree from the Chartered Institute of Marketing, UK and an MBA in Entrepreneurial Management.



Angela Choo

SMB lead, Microsoft Singapore

Angela Choo is an experienced director of marketing and product management with a demonstrated history of working in the information technology and services industry. She is skilled in business alliances, managed services, business development, partner management, and go-to-market strategy.



Neha Gupta

Business advisor to SMEs at the @SICCI (Singapore Indian SME center chamber of commerce and industry)

Neha Gupta is a digital marketing expert passionate about helping small-medium businesses and startups scale by enabling digital transformation.

As an experienced entrepreneur, Neha has created and successfully exited her own startup in the food tech space. She has APAC-wide experience, including India and Southeast Asia, and has worked with brand builders like Procter & Gamble.

Neha has digital marketing expertise in programmatic & mobile advertising, Facebook & Instagram Content & Ads Manager, Google Search (SEO/SEM) & Google Analytics, YouTube content and advertising, online campaigns, digital media planning and e-commerce.



Mrinalini (Minnie) Venkatchalam

Regional director, WeConnect International

As regional director of Southeast Asia and Oceania, Mrinalini (Minnie) provides support to WeConnect International by enhancing brand visibility and conducting outreach to women entrepreneurs and corporate buyers in Southeast Asia, East Asia and Oceania. Her region is probably the fastest growing for small and medium-sized enterprises, including those that are women-owned.

With experience spanning over a decade, Minnie has worked to bridge the gap between unmet social needs and service providers, giving large corporations, government agencies, community organizations and social enterprises the platform to create measurable social impact.

Minnie has been awarded the Singapore Women's Weekly Great Women of Our Time Award in the Public Service and Education category and has been nominated as one of Cleo Singapore's 2016 top ten changemakers.

List of Singapore's Advisory Panelists

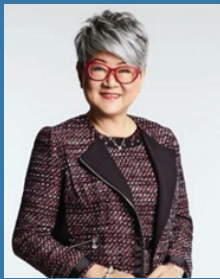


Regula Schegg

Managing director, Asia at Circulate Capital

Regula is Circulate Capital's managing director for Asia. She leads the investment strategy, manages the investment team and oversees the fund's investment portfolio in South and Southeast Asia. Together with her team, Regula manages asset allocations as well as due diligence portfolio management of fund investments. She also provides strategic advisory to the portfolio companies, focusing on strategy, business development, fundraising, key hiring decisions, financial management, and governance.

Regula is an experienced global professional with over 20 years of leadership, business development, project management, finance, and social enterprise/startup expertise. Throughout her corporate career, she has held positions in corporate strategy, M&A, private equity, financial controlling and business development. Regula graduated with an MBA (Honors) in Global Management from Thunderbird, School of Global Management, USA, with undergraduate studies in Switzerland, the United Kingdom and France. She is an Aspen Institute Business & Society First Movers Fellow.

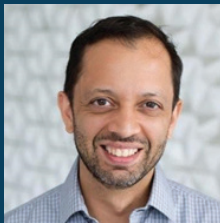


Kim Underhill

Singapore Business Professional Women Association

Kim Underhill is a leader in change management strategy with over 25 years of international management experience. She has successfully led profitable sales, marketing, and operations throughout APAC for global MNCs and management of fortune in 50 organizations.

Kim is a keynote speaker certified executive coach certified practitioner for NLP & Belbin Team Roles, and the author of *Success Inside Out*—a 6-step self coaching methodology— and *New Age Leadership*, which helps individuals be effective, influential, and inspiring leaders.



Zia Zaman

Managing partner, Beaver Lake Capital

Zia is a full-spectrum leader with proven expertise in innovation, strategy, and marketing. His track record includes launching businesses, building innovation pipelines and systems, growing revenue while improving margins, managing substantial P&L responsibilities, selling and delivering senior-level consulting engagements, leading global line organizations in innovation, strategy, product marketing, corporate development, and achieving a successful exit via a billion-dollar sale to Microsoft. Zia's educational highlights include a MBA from Stanford University Graduate School of Business and Master's and Bachelor's degrees from MIT.



Knowledge Partner:



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